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VIRO ORNATISSIMO
JOSEPHO BANKS,
BARONETTO,
REGIÆ SOCIETATIS LONDINENSIS
EXIMIO PRÆSIDI:
PEREGRINATORI CELEBERRIMO,
INGENII ACUMINE, LABORUM PATIENTIA,
PHYSICIS
PER OMNE ÆVUM COMMENDATISSIMO,
SECUNDUM HUNC
NATURÆ VIVARII
FASCICULUM,
D. D. D.

GEORGIUS SHAW,

FREDERICUS P. NODDER.

TO
SIR JOSEPH BANKS,
BARONET,
PRESIDENT OF THE
ROYAL SOCIETY
OF LONDON:

TO WHOSE UNWEARIED LABOURS,
ENLARGED KNOWLEDGE,
AND LIBERAL PATRONAGE,
THE SCIENCE OF NATURAL HISTORY
IS SO HIGHLY INDEBTED,
THIS SECOND VOLUME OF THE
NATURALIST'S MISCELLANY,
IS RESPECTFULLY INSCRIBED

BY
GEORGE SHAW,
FREDERICK P. NODDER.

42
46
853
1719
V. 2
P. 11113

MUS SALIENS.



CHARACTER GENERICUS.

Dentes primores inferiores subulati.

Lin. Syst. Nat. p. 79.

CHARACTER SPECIFICUS, &c.

MUS cauda elongata floccosa, femoribus longissimis, digito utrinque spurio ad pedes posticos.

CUNICULUS pumilio saliens, cauda anomala longissima.

Briffon Quadr. 103.

JERBOA.

Shaw Itin. 248.

Mira pedum anticorum et posteriorum inæqualitate distinguitur Jerboa: antici enim ita breves sunt ut ad progrediendum minime valeant, postici autem totius corporis longitudini pares sunt. Hinc fit ut pedibus solummodo posterioribus stet et quiescat, anticosque ad nullum alium usum convertat, quam ad attrahendum cibum, culmos nempe cum spicis tritici, aliasque plantas; aut ad fodiendum cubile subterraneum. Plerumque more avis incedit, erecta scilicet cruribus, quæ pilis rarissimis vestiuntur, aviumque cruribus sunt

Q

valde

valde similia. Cauda illi prælonga est, apice fasciculato.

Tres vel quatuor exstant Jerboæ species, vel saltem constantes, ut dicuntur, varietates, quæque in PENNANTII Historia Quadrupedum, genus distinctum constituent; quas vero LINNÆUS, sub genere *Muris* ordinat.

Pernicissimæ velocitatis sunt Jerboæ, et ab hoste fallibus continuatis longissimis adeo rapide aufugiunt, ut equo generoso vectus aliquis vix ægreque illas assequi possit. Frigoris sunt impatientes, et tempore brumali in domunculis subterraneis sepultæ obdormiunt. Frugibus vescuntur. In hoc potissimum differt species de qua jam agitur a communi specie, (quæ *Mus Jaculus* LINNÆI) quod crura paulo supra pedes digito utrinque spurio, longo, velut calcari armantur. Non tantum calidas regiones, Syriam nempe et Barbariam, sed et Sibiriae partes orientales, idque frequenter, incolit Jerboa. Moles illi est quasi magni foricis.

DEI



London Published Aug. 22. 1790 by F. P. Nodden & Co. No. Brewer Street.

T H E
S I B I R I A N J E R B O A .



GENERIC CHARACTER.

Two long cutting teeth in each jaw.

Fore Legs very short: hind legs very long.

SPECIFIC CHARACTER, &c.

JERBOA with a pair of spurious toes on each hind foot.

SIBIRIAN JERBOA.

Pennant Quadr. p. 429.

The Jerboa is remarkable for the strange disproportion between the length of the fore legs and the hind ones; the former being so very short as to be of no use to the animal in walking, while the latter are so long as to equal the whole body. In consequence of this peculiar formation, the creature stands and rests on its hind legs only, and makes no other use of the fore legs than to hold its food, and draw down the stems of wheat and other vegetables on which it feeds, and to scratch the ground in order to form its burrows. It has the general actions and attitudes of a bird, and the legs are covered thinly with short hair, and very much resemble those of birds. The tail is very long and terminates in a tuft.

There are three or four distinct species, or at least permanent varieties of Jerboa, and in the History of Quadrupeds of MR. PENNANT they constitute a particular genus; but LINNÆUS places them as species of the genus *Mus*.

The Jerboas are animals of the most surprizing swiftness, and on the approach of danger immediately spring forward by successive leaps, so very nimbly, that it is said to be very difficult for a man well mounted to overtake them. They are impatient of cold, and remain during the winter in a dormant state in their burrows. They feed on vegetables. The particular species here represented differs principally from the common Jerboa or *Mus Jaculus* of LINNÆUS in having the legs furnished at a little distance above the feet with a pair of spurious toes or spurs. It is found not only in the warmer regions of Barbary and Syria, but in the Eastern part of Siberia in considerable plenty. It is about the size of a large rat.

PENNATULA PHOSPHOREA.



CHARACTER GENERICUS.

Flores Hydræ, ad marginem denticulatum pinnarum.

Stirps libera, fubulata, apice pinnata.

Lin. Syst. Nat. p. 1321.

CHARACTER SPECIFICUS, &c.

PENNATULA stirpe carnosa, rachi scabra, pinnis imbricatis.

Lin. Syst. Nat. p. 1322.

PENNATULA PHOSPHOREA.

Ellis Aët. Angl. v. 53. t. 19. f. 1—5.

PENNA MARINA.

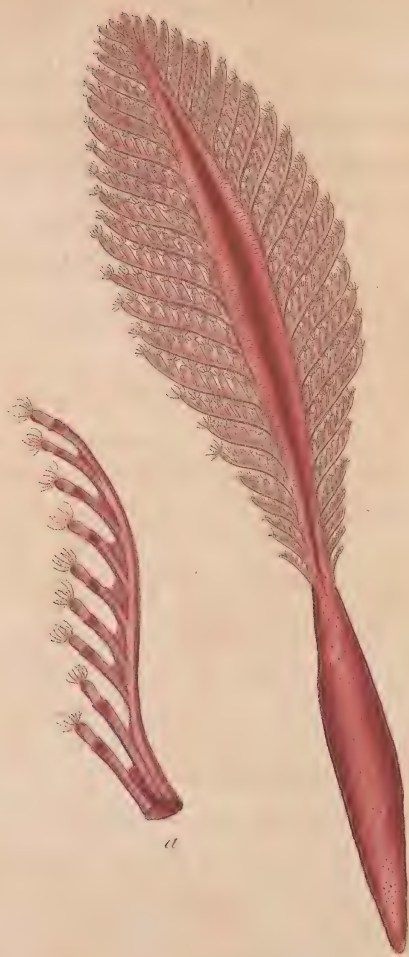
Baubin Hist. 3. p. 802.

Pennatulæ genus constituunt Zoophytorum moventium, more piscis natantium. Formæ sunt plerumque perelegantis. Species quam descripsimus est fortasse vulgatissima. Circa littora Britanniae frequens reperitur, et non raro adhæret piscatorum lineis. Animal constat corpore, seu velut stipite paulum complanato, et inde in ramos laterales numerosos expanso, quorum parietes interni in tubulos multos dividuntur, e quorum apicibus totidem prodeunt velut hydrarum,

hydrarum, seu polyporum capitula, cum suis tentaculis. Totum igitur animal videtur esse hydra ramosa et valde composita, cujus corpus in stipite, seu parte nuda continetur, atque in numerosissimos ramulos utrinque continuatur, singulo ramulo peculiari suo capite instructo.

Mirum hoc animal lucem adeo phosphoream emittit, ut piscatores pisces prope ludentes solo Pennatulæ lumine distincte perspicere possint. Color ejus vivide ruber est, et communis magnitudo ut repræsentat tabula.

a. Ramulus microscopio auctus.



London, Published Aug.^r 1st 1790 by F. P. Nodder & Co N^o 13. Brewer Street.

THE
PHOSPHORIC PENNATULA,
OR
SEA-PEN.



GENERIC CHARACTER.

Animal free, or locomotive.

Body (generally) expanding into processes on the upper part.

Processes or branches furnished with rows of tubular denticles.

Polype-head proceeding from each tube.

SPECIFIC CHARACTER, &c.

SEA-PEN with fleshy stem, middle part rough, pinnules imbricated.

BRITISH SEA-PEN.

Ellis Zooph. p. 61.

THE COMMON SEA-PEN.

The Pennatulæ or Sea-Pens form a genus of locomotive Zoophytes, and swim in the manner of a fish. They are in general of a very beautiful appearance. The species here exhibited is the most common: it is found in considerable plenty on the British coasts, and
is

is drawn up in numbers adhering to the baits of fishermen's lines. The animal consists of a somewhat flattened stem or body, which is furnished with an internal bone, and dilates into an expanded part consisting of a great many pinnæ or lateral branches, which are divided on their inner edges into a number of tubular processes, through each of which is protuded a part of the animal, resembling the head of a hydra or polype: the whole animal therefore may be considered as a very compound or ramified hydra or polype, the body of which is contained in the naked part or stem, and from thence ramifies into a vast number of processes, each furnished with its particular head.

This curious animal emits a very strong phosphoric light, and it is even so luminous that it is no uncommon circumstance for the fishermen to see the fish which happen to be swimming near it, merely by the light of the Pennatula. Its colour is a bright red or crimson, and the general size that of the figure.

a. One of the pinnæ magnified,

DIONÆA MUSCIPULA.



CHARACTER GÉNÉRICUS.

Perianthium pentaphyllum.

Corolla pentapetala.

Germen depressum, crenatum.

Stigma patens, fimbriatum.

Cl. Decandria Monogynia.

CHARACTER SPECIFICUS.

DIONÆA foliis ciliatis.

Carnivoro generi varia est acquirendæ prædæ ratio. Ab hoc nempe vi corripitur; ab illo venatione fatigatur: alterum venenum lethale morfu inflat, et id omne otiosum deglutit, cui aufugiendi potestatem ademerit: est etiam quod multiplici utitur dolo, incautaque animalia in casses suos illaqueat. Non tantum animalibus majoribus inest hæc prædandi cupido; sed et minimis; præcipueque insectis, quorum plurima interdum vel in suam speciem graviter sæviunt.

Quod vero dictu omnino mirum videatur, sunt etiam plantæ ad insectorum damnum et perniciem natæ, quæ vel a viscoso foliorum aut florum quibus incaute insident, humore implicantur, vel illius partis quam irritabilem nuncupant physici, pressura includuntur. Ita se rem habere certissime demonstrat species illa Apocyni,
botanicis

botanicis nomine Apocyni androsæmifolii probe cognita: in cujus floribus antheræ quæ profundius intra corollam latent, adeo convergunt, ut sint quasi tegmen nectariis subjacentibus; quorum in medio manet gutta liquoris dulcis et mellei quo potissimum delectantur insecta. Antheræ levissimo tactu irritabiles, multo arctius inter se conveniunt; quo fit ut musca, seu aliud insectum floribus insidens, et proboscidem ad mel exugendum e fundo corollæ protendens, antheris irritatis et subito convergentibus irretiat, misereque detenta pereat.

Est tamen multo mirabilius exemplum irritationis hujus vegetabilis in planta quæ in tabula depingitur. Cum enim foliorum superficies facillime exasperetur, et singulum folium ad margines serie spinularum seu vallorum cingatur, tactumque, subito in longitudinem arctissime convergat; necesse est ut quicquid insectum ibi malo fato advenerit, nisi ocissime aufugiat, non secus ac mus in muscipula capiatur; plerumque etiam firma et valida pressura occidatur. Irritabiliorem reddit hanc plantam plenus et meridianus solis calor.

America Septentrionali innascitur, in uliginosis Carolinæ locis præcipue reperta. In Angliam circiter vigintiquinque abhinc annos illata est, et a celeberrimo ELLISIO nomine *Dionææ Muscipulæ* descripta.

Quo præcipue consilio insita sit illi mira hæc indoles quam jam tractavimus, philosophos omnes hæctenus effugit, latebitque, ut credo, posteros.

Magnitudo ejus plerumque est ut in tabula depicta: nonnullas tamen ipse aliquando vidi quibus caulis multo procerior. Numerus staminum non semper certus est, et idem.



London, Published Aug^r 1890, by F. R. Satchell & Co., 15, Brown Street.

DIONÆA MUSCIPULA,
O R
VENUS'S FLY-TRAP.



GENERIC CHARACTER.

Calyx five-leaved.

Corolla five-petaled.

Germen depressed and crenated.

Stigma spreading and fimbriated.

SPECIFIC CHARACTER.

DIONÆA with ciliated leaves.

Various are the methods by which animals of a carnivorous nature obtain their destined prey; some seizing the victim with resistless violence, or hunting it down till it is exhausted with fatigue, or inflicting a deadly poison by their bite, and thus securing it beyond all possibility of escape, and afterwards swallowing it at leisure: others exerting every artifice of insidious ingenuity, and entrapping the unwary animal into their snares. It is not only amongst creatures of the larger kind that this predacious disposition prevails, but even throughout many of the smallest tribes of nature; and particularly amongst insects, of which several kinds might be adduced which occasionally prey even on their own species.

What

What is still more extraordinary, there are not wanting amongst vegetables some instances, in which the smaller animals meet their fate by alighting on the flowers or leaves; being either held fast by a viscous exudation from the surface, or confined by the pressure of the irritable parts of the plant. One of the most curious instances of this kind is in a species of *Apocynum*, well known to Botanists by the name of *Apocynum androsæmifolium*. In the flowers of this plant the antheræ, which are situated pretty deep in the flower, converge, so as to form a shelter for the nectaria lying below them, and in the centre of which is contained a small quantity of that sweet juice so peculiarly attractive to insects. The antheræ are possessed of a very great degree of irritability, and suddenly converge much closer on being touched; when therefore a fly, or other small insect alights on the flower and inserts its proboscis into the centre, it is suddenly caught by the converging antheræ, and detained in this miserable situation till it perishes.

But a still more wonderful example of vegetable irritability occurs in the plant represented on the annexed plate. In this plant the surface of the leaves is irritable in the highest degree, and each leaf being furnished round the edge with a series of spiny processes, and converging longitudinally when irritated, with a very considerable degree of pressure, it follows that whatever insect is so unfortunate as to alight on the leaf, is, (unless it be extremely nimble) caught as effectually as a mouse in a trap, and is even generally squeezed to death by the pressure. The plant is most irritable during the warm part of the day, and in full sunshine.

It

It is a native of North America, and is principally found in the swampy parts of Carolina, from whence it was introduced into this kingdom about twenty-five years ago, and was described by the late MR. ELLIS by the title of *Dionæa Muscipula*.

What particular purpose in the Oeconomy of Nature is answered by the imprisoning power of this extraordinary vegetable, it is extremely difficult, and perhaps impossible to determine.

The general size of the plant is as represented in the plate, but I have seen the stem much taller than in the specimen here figured. The number of stamina is not always constant.

BUCEROS RHINOCEROS.



CHARACTER GENERICUS.

Rostrum convexum, curvatum, cultratum, magnum, extrorsum ferratum; Frontis calvaria nuda, osseo-gibbosa.

Nares pone rostri basin.

Lingua acuta, brevis.

Pedes gressorii.

Lin. Syst. Nat. p. 153.

CHARACTER SPECIFICUS, &c.

BUCEROS cornu mandibulari frontis recurvato.

Lin. Syst. Nat. p. 153.

HYDROCORAX INDICUS.

Briss. Av. 4. p. 571.

Genus Buceros ab aliis omnibus avibus facillime dignoscitur ob rostrum ingens et immodicum; primo sane intuitu, deformitati potius fortuitæ et enormi, quam constanti perfectoque Naturæ artificio similis. Cuinam commodo inserviat rostrum hoc inusitatum difficile est dicere; nec de hac re aliquid conjicere possum præter quod jampridem observarunt plurimi physici; posse nempe illud ea de causa dari, ut contra

R

hostes

hostes potentiores, siquando cum illis confligitur, melius decertetur.

In plerisque hujus generis speciebus pars illa superioris maxillæ quæ prominet, recta est : at in specie de qua jam loquimur, recurvatur ; unde et ipsa avis nomine *Rhinocerotis* distinguitur. Indiam incolit Orientalem, et in insula Java, nec non in Sumatra, in insulis etiam Philippenfis frequenter conspicitur. Carnes putridas fertur comedere, visceraque animalium incredibili lætitia deglutire.

Magnitudine Meleagridi Gallopavoni LINNÆI non longe est inferior. Colores sunt albi nigrique, ut repræsentat tabula. Rostrum uncias decem est longum ; cornuque seu processum super mandibulam superiorem gerit incurvatum, linea longitudinali nigra notatum. Mandibula superior ad basin rubra est, indeque ad apicem albo-flavescens : inferior pallida est, basi nigra.



Pl. 17. A large bird, with a long, curved beak, and a red face. It is standing on a grassy field, with small plants and flowers. The bird is facing left.

THE
GREAT HORNBILL,
OR
RHINOCEROS-BIRD.



GENERIC CHARACTER.

Bill convex, large, and bent, with a protuberance on the upper mandible.

Nostrils small, and seated behind the base of the bill.

Tongue small? sharp?

Feet formed for walking, viz. three toes forward, one backward.

SPECIFIC CHARACTER, &c.

BUCEROS with a recurved mandibular horn.

HORNED INDIAN RAVEN, or RHINOCEROS-BIRD.

Will. Ornithol. p. 127.

The genus to which this bird belongs, is above all others distinguished by the extraordinary structure of the beak, which at first view has rather the appearance of some enormous deformity, or irregular monstrosity, than of a natural production. What is the intent of
Nature

Nature in the formation of this singular beak, is not yet clearly investigated; it has been supposed, (and not without a considerable degree of probability) that the birds of this genus, having some very powerful enemies, with which they may have occasional conflicts, are provided with this immoderate beak as a defensive weapon.

In most of the species, the prominent part on the upper mandible is of a straight form; but in the present species it is turned backwards in a most singular manner; and it is from this circumstance that the bird has obtained its common title of Rhinoceros-bird. It is a native of the East-Indies, and is often found in Sumatra and Java, and the Philippine Islands. It is said to feed on carrion, and to be particularly fond of the entrails of animals.

This bird is not much inferior in size to a turkey, and its colours are as represented in the plate; viz. black and white. The beak is about ten inches long, and the horn or curved process on the upper part, is marked by a longitudinal line of black. The upper mandible is red at the base, and of a whitish yellow as it approaches the tip. The lower one is of a pale colour, with a black base.

MANTIS GIGAS.



CHARACTER GENERICUS.

Caput nutans, maxillosum, palpis instructum.

Antennæ fetacæ.

Alæ quatuor, membranacæ, convolutæ : inferiores plicatæ.

Pedes antici compressi, subtus ferrato-denticulati, armati ungue solitario et digito fetaceo laterali articulado ; *postici* quatuor, læves, gressorii.

Thorax linearis, elongatus, angustatus.

Lin. Syst. Nat. p. 689.

CHARACTER SPECIFICUS.

MANTIS thorace teretiufculo, elytris brevissimis, pedibus spinosis.

Lin. Syst. Nat. p. 689.

Formam magis miram et singularem quam quæ huic insecto est, vix animo possumus concipere. Quod si physicos solos audiremus, nec oculis nostris fides esset, dubitari etiam fortasse posset an tale ullud unquam revera extiterit. In insectis hujus classis, larva, seu animal imperfectum, ab imagine ipsa, seu insecto adulto non multum abludit, nisi quod alis careat, quarum illi (ut physicorum more loquar) rudimenta tantum sunt.

In musæis rarissime conspicitur insectum hoc alatum,
plenum,

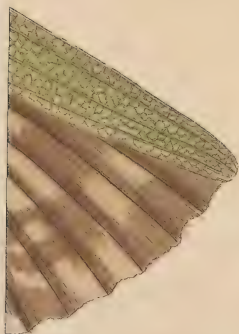
plenum, et perfectum; larvæ quippe solummodo in Europam advehi solitæ sunt, in queis alarum, ut jam diximus, rudimenta vix ac ne vix conspici possunt. Istiusmodi larva communiter *bacilli ambulantis* nomine cognoscitur.

Singulare aliquid huic insecto est, quodque perpaucis aliis sui generis contingit, alas nempe non tantum thecis externis, sed et elytris quasi secundariis muniri, quæ tamen connexa videntur, quæque ipsas fortasse alas ab injuriis securiores reddant.

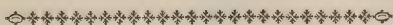
Mirum et rarum hoc insectum Insulam Amboynam inhabitat; ipsumque specimen unde depingitur hæc nostra figura, in Musæo Leveriano tam belle exficcatum, ut nihil sit perfectius, assertatur,







THE GREAT MANTIS.



GENERIC CHARACTER.

Head unsteady : Mouth armed with jaws, and furnished with palpi.

Antennæ setaceous.

Wings four, membranaceous, convoluted : the lower ones plicated.

Feet anterior compressed, ferrated beneath, armed with a solitary claw and lateral jointed process ; *posterior* four, smooth, formed for walking.

Thorax linear, elongated, and narrowed.

SPECIFIC CHARACTER.

MANTIS with roundish rough thorax, very short elytra, and spiny feet.

Imagination can hardly figure to itself a creature of a more singular appearance than this insect; and had we only received the accounts of authors, without having seen the animal itself, we might be inclined to question the truth of its existence. In insects of this tribe the animal in its incomplete state, or that which is analogous to the caterpillar-state in the butterfly-tribe, differs not much from the appearance of the insect

fect in its complete form, except in not being furnished with wings.

This creature is very rarely met with in collections in its complete or winged form ; being generally seen in the less advanced growth before-mentioned, in which the rudiments of the wings are but just visible. In that imperfect state it has commonly been described under the title of the walking stick.

A most singular circumstance in this insect, (and which takes place in but very few others of the genus) is, that, exclusive of the elytra, or wing cases, there is an additional pair, which may be supposed to serve as a farther guard in securing the wings themselves : this secondary pair however seem to be connate with the wings themselves, so as to make a part of them.

This most curious and uncommon insect is a native of the Island of Amboyna, and the specimen from which the figure was taken, is now in the highest preservation in the Leverian Museum.

ACARUS AUTUMNALIS.



CHARACTER GENERICUS.

Pedes octo.

Oculi duo, ad latera capitis.

Tentacula duo, articulata, pediformia.

Lin. Syst. Nat. p. 1022.

CHARACTER SPECIFICUS.

ACARUS globoso-ovatus ruber, abdomine postice fetoso.

Omnibus fere nimis notum est molestissimum hoc animalculum, mensibus præcipue Augusti et Septembris. Acaro vulgari multo minus est, cutique affixum unguibus, præsertim tentaculis duobus brevibus supra pedes anteriores sitis, visu difficillimum est, nec sine laceratione avelli potest. Quamvis celeriter currat acarus autumnalis, tardior tamen est multis ejusdem generis. Cuicunque corporis parti se affixerit, exoritur ibi tumor magnitudine pisi, cum summa prurigine.

Color huic animalculo est vivide ruber, et ope microscopii, pars corporis posterior setis rigidis albisque vestiri videtur. Rostrum, quod interdum visibile est, sæpius intra thecam reconditum, tubulatum est. A summo capite prodeunt parvula duo spicula, utrinque extrorsum spectantia. Discurrunt hæc insecta super

S vegetabilia,

vegetabilia, præcipueque sentiuntur ab illis qui inter gramina et segetes ambulaverint.

Narrat Dominus WHITE in historia sua de Selborne in agro Hamptonienfi, cretaceas ibi regiones illis adeo infestari, ut cuniculariorum retia rubro colore tingantur, ipsique homines morfu immodico irritati, non raro febricitent.

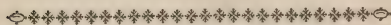
De hac acari specie silent LINNÆUS et FABRICIUS: cursim et obiter describitur in BAKERI libro secundo de microscopiis qui et figuram addidit; quæ cum ab exsiccatō infecto delineata sit, veram similitudinem vix fatis exprimit.

Qui ipsissimum animalculum commodissime spectare velit, duobus vitri frustulis leviter interpositum in microscopio examinet. Hoc modo membra omnia facillime explicabuntur, sine laceratione aut injuria.



London, Published Sept. 1790 by J. B. Redden & Co. No. 1. Princes Street.

THE
AUTUMNAL ACARUS,
OR
HARVEST-BUG.



GENERIC CHARACTER.

Eight *Legs*.

Two *Eyes*, situated on the sides of the head.

Two *Tentacula*, jointed, and shaped like feet.

SPECIFIC CHARACTER.

RED GLOBOSE-OVATE ACARUS, with the
abdomen bristly behind.

This troublesome insect will make itself sufficiently known to most people during the months of August and September: it is much smaller than a common mite, and can but just be perceived upon the skin, to which it adheres by its claws, and particularly by the two short arms or tentacula situated above the upper legs.

It can scarcely be separated from the skin without violence, when once it has fixed itself: its motion when disengaged is considerably quick, though by no means equal to that of some other species of acari. On the part where it fixes, it causes a tumor, generally about the size of a pea; sometimes much larger, accompanied with a severe itching.

The

The colour of this diminutive insect is a bright red, and when microscopically examined, the lower part of the body appears to be coated with stiff white bristles. It seems to be provided with a tubular snout, which is generally concealed or sheathed, but which may sometimes be distinctly seen. On the top of the head are two little processes or sharp implements which turn outwards each way. These insects abound on vegetables, and are generally contracted by walking in gardens, amongst long grass, or corn fields.

According to MR. WHITE in his History of Selborne, they abound to an uncommon degree in the chalky districts of that part of Hampshire. He relates that he has been assured that the warreners in the chalky downs, are so much infested by them, and that they swarm to so infinite a degree as to discolour their nets, and give them a reddish cast, whilst the men are so bitten as to be thrown into fevers. Vid. Hist. Selb. p. 89.

It is a species which seem to have escaped the notice of systematic Naturalists; and is not to be found either in LINNÆUS or FABRICIUS. A slight general description of it is given in BAKER'S Employment for the Microscope, accompanied by a figure; but as the figure was evidently taken from a dried specimen, it gives but a very imperfect idea of the animal.

The only way of viewing it to advantage is to place it on a piece of glass and to lay another piece of glass immediately upon it, by which means it will be just so much compressed as to expand all its limbs without being injured; in this situation it may be viewed, especially by a compound microscope, to the greatest possible advantage.

PICUS MINIMUS.



CHARACTER GENERICUS.

Rostrum polyedrum, rectum: apice cuneato.

Nares pennis fetaceis recumbentibus obtectæ.

Lingua teres, lumbriciformis, longissima, mucronata, apice retrorsum aculeata fetis.

Pedes scanforii.

Lin. Syst. Nat. p. 173.

CHARACTER SPECIFICUS.

PICUS griseus, vertice coccineo, occipite nigro albo punctato.

Species Picorum plurimæ exstant; sed omnium specierum hætenus cognitarum hæc facile minima. Tabula sistit aviculam magnitudine naturali. Cayanam in America Australi incolit.

THE
LEAST WOODPECKER.



GENERIC CHARACTER.

Bill angular, strait, cuneated at the tip.

Nostrils covered with reflected bristly feathers.

Tongue cylindric, worm-shaped, very long, sharp-pointed, and (generally) aculeated at the tip with reflex bristles.

Feet formed for climbing, viz. two toes forward and two backward.

Lin. Syst. Nat.

SPECIFIC CHARACTER, &c.

CHESNUT-GREY WOODPECKER, with the top of the head crimson, and the back part black speckled with white.

Le tres petit PIC DE CAYENNE.

Buff. Ois. 7. p. 37.

MINUTE WOODPECKER.

Lath Synops. vol. 1. p. 596.

The species of Woodpeckers are very numerous ; and of all the species yet discovered, this is by far the least. The plate represents it in its natural size. It is a native of Cayenne in South America.



J. N.

London, Published Oct. 1840

by F. & R. Voddler & Co. 1.25 Bowyer Street.

LACERTA SALAMANDRA.



CHARACTER GENERICUS.

Corpus tetrapodum, ecaudatum, nudum.

Lin. Syst. Nat. p. 359.

CHARACTER SPECIFICUS, &c.

LACERTA cauda tereti brevi, pedibus muticis,
palmis tetradactylis, corpore poroso nudo.

Lin. Syst. Nat. p. 371.

SALAMANDRA.

Gesn. Quadr. 80.

SALAMANDRA TERRESTRIS.

Ray Quadr. 273.

Novum omne et inauditum avida semper aure bibit
gens humana. Quasi vero ipsa Natura sua non mille
habeat miracula, nunquam defuere qui de monstris et
prodigiis, reliquaque infani capitis farragine lubentif-
sime scripserint.

Istiusmodi sunt dracones illi ingentes ab antiquis
descripti; nec non Lamia, fera nempe quæ corpus
Pantheræ squamis vestitum, cum capite et mammis,
mulieris sortita est. Huc etiam referenda est Salaman-
dra, quam vulgus inepte putat in igne illæsam vivere.

Est profecto Salamandra parva lacertæ species, in
Germania,

Germania, aliisque Europæ regionibus minime rara; coloris nigri, apud latera ventremque maculis magnis longisque vivide flavis, sive aureis decorati. Maculæ hæc interdum magnitudine et figura variant. Tegitur hæc lacerta meatibus, sive foraminibus parvis, humorem quo plerumque madet animal, exudentibus. Hi meatus prope caput magis conspicui sunt quam in reliquo corpore. Cauda ad teretem accedit formam, et longitudine est mediocri, gradatim attenuata.

Hoc est illud animal de quo tot miræ et ridiculæ divulgatæ sunt fabulæ, quodque etiam nunc temporis a vulgo, peculiari quadam et ignota vi ignis ardorem repellere creditur. Est fane nihil aliud hæc vis antipyretica, quam *frigidi* animalis humida et naturalis temperies, cujus ope paulo longius ab ignis impetu manet inconsumptum, quam aliarum substantiarum major siccitas.



London, Published Oct. 24. 1890 by F. P. Motter & Co. N. 25. Brown Street.

THE S A L A M A N D E R.



GENERIC CHARACTER.

Body four-footed, tailed, naked.

SPECIFIC CHARACTER.

LIZARD with cylindric shortish tail and unarmed feet; the fore-feet divided into four toes, the body porous and naked.

There seems to prevail in the human mind an inherent propensity to the marvellous. Not contented with the variety of real miracles which Nature through all her kingdoms so liberally exhibits, the world has long been entertained with the histories of ideal wonders and imaginary monsters, which never existed but in the brains of their first describers.

Amongst beings of this class must be reckoned the large dragons described by the old writers; the Lamia, described as having the head and breasts of a woman, with a body like that of a panther, and covered with scales: to this order must also be referred the ideal Salamander of the vulgar; which is thought capable of living unhurt in the fire.

The real Salamander is nothing more than a smallish lizard, which is found very frequently in Germany,
and

and many other parts of Europe. It is of a black colour, ornamented on the sides and belly with large and longish marks or spots of a rich yellow or gold-colour, and which are frequently somewhat irregular in their shape and disposition. It is covered over with pores or small foramina, through which exudes the moisture with which it is generally covered: these pores are most conspicuous near the head; the tail is of a moderate length, and is roundish, or somewhat cylindrical, and gradually tapers to the end.

Such is the animal of which so many incredible tales have been recited, and which still continues to be regarded by the ignorant as possessed of the power of repelling the effect of fire; a power which it possesses in no higher degree than a frog, a snail, or any other moist substance, which is not so immediately consumed as those of a drier nature.

JULUS MAXIMUS.



CHARACTER GENERICUS.

Pedes numerosi, duplo utrinque plures quam corporis segmenta.

Antennæ moniliformes.

Palpi duo articulati.

Corpus femicylindricum.

Lin. Syst. Nat. p. 1064.

CHARACTER SPECIFICUS.

JULUS pedibus utrinque 134.

Lin. Syst. Nat. p. 1066.

Hujus generis insecta scolopendris sunt valde affinia ; nisi quod corpora habent cylindracea, non complanata ; quodque singulis corporis articulis pedes utrinque duo sint, quorum numerus duplo major est quam corporis articuli, cum in Scolopendris sit par.

Animalia hæc, si aliquo modo perturbantur, in spiram planam se solent contorquere. Os habent maxillis validissimis munitum, quibus morsum immitem non tamen venenosum possunt infligere. Species hic depicta est sui generis maxima. In America invenitur, sylvas et loca obscura perreptans. Species etiam
valde

valde similis, si non eadem, in India Orientali exstat.
Color his infectis est lucide fuscus, paululum nigrans;
crura autem, cum corporis parte inferiore subalbican-



THE GREAT JÜLUS.



GENERIC CHARACTER.

Feet numerous: twice as many on each side as the segments of the body.

Antennæ moniliform.

Palpi (or feelers) two, jointed.

Body femicylindric.

SPECIFIC CHARACTER.

JÜLUS with about 134 feet on each side.

These insects are very nearly allied to the Scolopendræ or centipedes, but their body, instead of being flattened, as in those creatures, is nearly cylindrical; and every joint of the body is furnished on each side with two pair of feet; so that the number of feet on each side is double the number of joints, whereas in the Scolopendra they are equal.

These animals, when disturbed, roll themselves up in a flat spiral. Their mouth is armed with a very strong pair of jaws, with which they are capable of inflicting a severe bite: they are not however of a poisonous nature. The species here figured is the largest of the genus. It is found in America, where it inhabits

U

woods

woods and retired places ; and a species extremely resembling it, if not in reality the same, is found in the East-Indies. The colour of the insect is a blackish brown, of a shining surface : the legs are whitish, as is also the under part of the body.

STRIX NYCTEA.

VAR. STRIATA.



CHARACTER GENERICUS.

Rostrum aduncum (absque cera.)

Nares pennis fetaceis recumbentibus obteſtæ.

Caput grande : auribus oculisque magnis.

Lingua bifida.

Lin. Syst. Nat. p. 131.

CHARACTER SPECIFICUS.

STRIX capite lævi, corpore albedo maculis
lunatis distantibus fuscis.

Lin. Syst. Nat. p. 132.

Avis hæc inter varietates est rarissimas ac elegantissimas magnæ et nivæe strigis Americam simul ac Europam septentrionalem incolentis : plerumque est tota nivea, maculis aliquot lunatis fusco-nigricantibus interspersis : varietas autem de qua jam loquimur, est per totum fere corpus notis numerosissimis fuscis obducta, quæ versus collum sensim angustiores fiunt, et in breves et interruptas fascias concurrunt, quibus etiam tota avis subtus notata est : caput omnino albet ; ut et pedes, qui, ut in aliis omnibus hujus speciei ex-

emplis, ad ipsos ungues plumis velleri similibus densissime vestiuntur: rostrum unguisque nigricant; irides flavent.



THE
S N O W Y O W L.
A STRIPED VARIETY.



GENERIC CHARACTER.

Bill crooked (not furnished with a cere).
Nostrils covered with recumbent bristly feathers,
Head large : *Ears* and *Eyes* large.
Tongue bifid.

SPECIFIC CHARACTER, &c.

HORNLESS WHITE OWL, marked with
distant lunated spots.

SNOWY OWL.

Lath. 1. p. 132.

GREAT WHITE OWL.

Edwards 2. pl. 61.

The bird here figured is a most curious and beautiful variety of the great Snow-white Owl; a species which is a native both of the northern parts of Europe and of America, and in size is equal to the great Eagle-Owl. In its common or general state it is of a snowy whiteness, with here and there a few small scattered crescent-shaped spots of blackish brown; but the specimen now represented is spotted all over the upper surface with numerous marks of
brown,

brown, which as they approach the neck become narrower, and run into short interrupted fasciæ or bands, with which also the whole under surface of the bird is ornamented : the head is white ; the feet also are perfectly white ; and like all other individuals of this species, are most thickly coated with feathers to the very claws, so as to have the appearance of a very deep fur : the bill and claws are black : the irides yellow.

SIMIA SPHINX?



CHARACTER GENERICUS.

Dentes Primores utrinque quatuor, approximati.

Laniarii solitarii, longiores, hinc remoti.

Molares obtusi.

Lin. Syst. Nat. p. 34.

Cl. *Mammalia*.—Ord. *Primates*.

CHARACTER SPECIFICUS.

SIMIA SEMICAUDATA, ore vibrissato, unguibus acuminatis, natibus calvis?

Lin. Syst. Nat. p. 35.

Simiarum quæ communiter Papiones nominantur, duæ sunt species adeo inter se similes, ut revera licet diversæ, plerumque tamen ab auctoribus, qui suis oculis visas sibi invicem collatas non sedulo examinerint, pro una eademque specie descriptæ sint: Simia nempe *Sphinx* et Simia *Maimon* LINNÆI.

Præcipue distinguuntur diversa magnitudine: Sphinge enim multo minor est Maimon: sed discrepat et vultus color: Sphinx enim nasum habet medium sanguinei ruboris, Maimon obscure tantum incarnatum. Sphingis etiam natibus multo vividior est

est rubor, regionique lumborum color omnino cæruleo-violaceus, qui in iisdem partibus alterius vix et ne vix conspici potest. Ad cætera vero adeo sunt affines hæ duæ species ut non mirum sit si incertum discrimen plurimos primo visu fefellerit.

Rarissimus est Simiæ Sphingis in Europa conspectus; Maimonis frequentior, et fere quotidianus. Utræque Africæ calidiores regiones inhabitant. Speciatim notandum est nomina et synonyma harum specierum scriptores communiter permiscuisse: LINNÆI enim Maimon multo melius cum hac nostra specie convenit quam cum illa quam ipse nomine Sphingis descripsit. Suspicio etiam (ut plane rem confitear,) hanc ipsam speciem hic depictam non esse Sphingem LINNÆI. Ad altitudinem quinque pedum et ultra crescit Sphinx; Maimon vix tres superat.



London, Published, Nov. 1840 by T. P. Nodder & Co. N. 15 Brewer Street.

THE VARIEGATED BABOON.



GENERIC CHARACTER.

Front-Teeth in each jaw 4, placed near together.
Canine-Teeth solitary, longer than the others,
distant from the remaining teeth, or grinders.
Grinders obtuse.

SPECIFIC CHARACTER, &c.

SHORT-TAILED WHISKERED SIMIA,
bare behind, with pointed nails, and violet-
coloured loins.

GREAT BABOON.

Pennant Hist. Quadr. p. 173.

Amongst the species of Simiæ called Baboons there are two, which though really very distinct from each other, have yet so great a general resemblance, that some authors, not having had opportunities of examining and comparing both species, have confounded them with each other; these two animals are the Simia Sphinx and the Simia Maimon of LINNÆUS.

The most striking difference is in point of size; the Sphinx being by much the largest of the two; but there is also a considerable difference in the colour of
the

the face: the middle of the nose, which in the Maimon is merely of a dull flesh-colour, is in the Sphinx of a sanguine red: the hinder part of the Sphinx is also of a much more intense red than in the Maimon; and the skin round the region of the loins is tinged with a very strong and fine violet-colour, which is scarce, if at all perceptible in the Maimon. In other particulars, they so much agree that it is no wonder they should have been frequently mistaken for one and the same species.

The S. Sphinx is a much rarer animal than the Maimon, and indeed is but very seldom to be seen in Europe; whereas the Maimon is not uncommon in most exhibitions of animals. Both species are natives of the hotter parts of Africa. It should be particularly observed that a general confusion seems to take place in the descriptions and synonyms of authors relative to these two animals; for the description given by LINNÆUS of his S. Maimon agrees much better with our supposed Sphinx than with the species so named by LINNÆUS. I am even inclined to suspect after all, that the S. Sphinx of LINNÆUS cannot be the animal here represented. The Sphinx grows to the height of upwards of 5 feet: the Maimon rarely exceeds 2 or 3 at farthest.

gemmatus, sui generis pulchritudinis exemplar non mediocre censetur.

Externa hæc et interna diversitas, (si causam liceat quærere) Papilionem ab avibus fortasse securiorem reddat, ut nempe ab hostibus minus facile discerni queat, dum alis clausis quiescit, quam cum alis expansis pleno splendore effulserit.

Americæ est incola, et ab eruca magna flavescente, spinis nigricantibus armata, originem ducit.



M E N E L A U S,
OR THE
SILVER-BLUE BUTTERFLY.



GENERIC CHARACTER.

The *Antennæ* or *Horns* thickening towards the upper part, and generally terminating in a knob, or club-shaped tip.

The *Wings* (when fitting) erect, and meeting upwards. (*Flight* diurnal.)

SPECIFIC CHARACTER, &c.

BUTTERFLY with indented wings; the upper surface of a brilliant blue, the lower clouded-brown; and marked with large ocellated spots.

Mer. Surin. t. 53.

Cram. Inf. 2. t. 21. *Clerk. ic.* t. 21. f. 1.

So uncommonly bright and brilliant is this superb insect, that it can but faintly be expressed by the utmost efforts of artificial colouring; and may serve as an instance, amongst many others, of the inimitable beauty which Nature alone can produce.

LINNÆUS

LINNÆUS in his description of this insect observes, that the blue on the upper surface is so polished and lively that scarce any other natural object can come in competition with it. On the contrary the under surface of the same animal exhibits an example of a species of beauty resulting from a varied combination of the plainest and most sober colours; the ground colour being brown slightly streaked with higher shades, and marked by several very large ocellated ferruginous spots with dark rings and white pupils.

If it were not almost bordering on temerity to attempt a reason for this striking difference between the two surfaces of the same insect, one might suppose that this sobriety of colouring on the lower side, is intended in some measure to secure the animal when sitting at rest, with its wings closed, from the depredations of birds, which are less likely to be attracted in this state than by the full lustre of its expanded plumage.

It is a native of South America, and proceeds from a large yellow caterpillar, beset with black spines.

PSITTACUS MAGNIFICUS.



CHARACTER GENERICUS.

Rostrum aduncum: mandibula superiore mobili,
cera instructa.

Nares in rostri basi.

Lingua carnosæ, obtusa, integra.

Pedes scanforii.

Lin. Syst. Nat. p. 139.

CHARACTER SPECIFICUS.

PSITTACUS brachyurus subcristatus niger,
fronte humerisque gilvo maculatis, cauda medio rubra nigro fasciata.

Novæ Hollandiæ insula, dignior sane quæ Continens Australis vocetur, alter quasi physicorum orbis, plurima animalia, reliquis regionibus incognita pergit suppeditare. Nulli tamen alii generi uberior accessit specierum copia quam psittacino, quarum lautissimæ vel ipsius Novæ Hollandiæ vel insularum adjacentium sunt incolæ.

Inter species hæc novas vix venustior est Psittaco Magnifico, qui sane mensura maximos Psittacos *Maccarws* dictos, physicisque notissimos æquat; in illa autem generis divisione recte disponitur, cui cauda non lanceæ ad instar producta et acuminata est, sed apice quadrato, seu ex rectricibus fere æqualibus constat.

Z

Color

Color generalis huic avi niger est. Caput leviter cristatum plumis densissime vestitur, quarum extremitates maculis gilvis, ut plurimum scatere solent. Maculantur quoque humeri eodem modo, et in aliquibus speciminibus latera corporis femoraque fasciis gilvis anguste transverseque notantur. Rostrum maximum et validissimum cornei est coloris, seu obscure fusci. Crura pedesque crassa et robusta, rostroque fere concoloria. Caudæ imo colori, coccineo nempe, transverse superadditæ sunt fasciæ numerosæ nigerriimæ; et utrinque prope rachin pennarum coccineus color fere in flavum languefcit. Basin apicemque cauda penitus nigra est.

Tota avis tam magnificum ostendit aspectum ut inter principes sui generis merito numeretur. Specimina aliquando paululum variant: color scilicet caudæ coccineus non in fascias numerosas nigro distinctas disponitur, sed latam transversamque aream intemerati ruboris in medio exprimit.



T H E
MAGNIFICENT COCKATOO.



GENERIC CHARACTER.

Bill hooked. Upper mandible moveable.
Nostrils round, placed in the base of the bill.
Tongue fleshy, broad, blunt at the end.
Legs short. Toes formed for climbing, viz. two forward and two backward.

SPECIFIC CHARACTER, &c.

EVEN-TAILED BLACK PARROT, with the head somewhat crested, the front and shoulders spotted with buff, the middle of the tail red crossed with black bars.

THE BANKSIAN COCKATOO.

Latham's Synopsis. Suppl. p. 63.

New Holland, which may not unjustly lay claim to the more dignified title of the Southern Continent, may be considered as a kind of new world to the Naturalist; and has already afforded several animals unknown to every other part of the globe. To no other genus, however, have such large accessions of new species been added as to that of *Psittacus*; of which some of the most superb kinds appear to be natives of New Holland, and some of the Southern Islands.

remota exulasse. Spectantur tamen aliquando, hortos et loca habitaculis suis propiora perreptantes.

Felix sane faustumque est humano generi mirandos hosce serpentes veneno prorsus carere; ob molem tantum et robur timendos; quibus sane adeo præpollent ut cervos aliosque majores quadrupedes, constringendo et amplexando enectos, lento haustu absorbeant: et dein usque ad stuporem et torporem fatiati latent, detectique facile vel sclopetis, vel aliis modis confici possint.

Cum prægrandes hos serpentes quasi ad aliorum animalium perniciem natos contemplamur, horrescimus illos et aversemur necesse est; si vero formam tantum et colores spectemus, non mediocrem illis inesse pulchritudinem lubentissime fatebimur. Color illis, uti et aliis hujus generis, diversus est pro varia ætate: ut plurimum tamen est cinereus, per dorsum et latera plagis maculisque oblongis, magnis, fusco-rubentibus, seu ferrugineis, margine nigro circumscriptis, et albo flavoque notatis variatus: venter plerumque flavescent albet.

Referunt historici totum Romanum exercitum, conspecto immodico serpente, (quem verisimile est ejusdem speciei fuisse cum illo qui in tabula depingitur), ingenti metu perculsum subito, et consternatum fuisse. Immanem hunc serpentem Valerius Maximus ex libro Livii historiæ deperdito his verbis memorat.

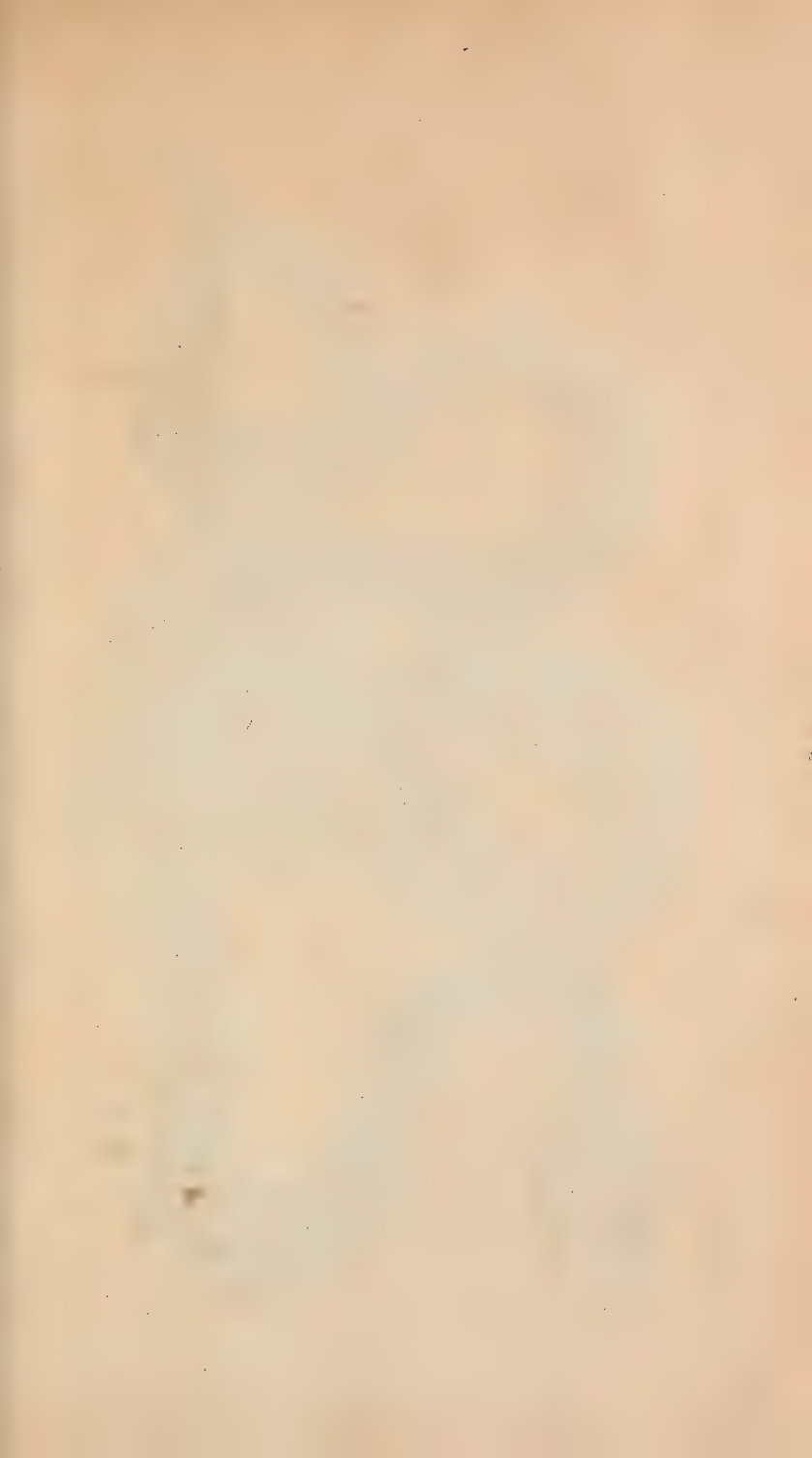
“ Quæ quia supra usitatam rationem excedentia attigimus, serpentis quoque a T. Livio curiose pariter ac facunde relata fiat mentio: Is enim ait in Africa apud Bagradam flumen tantæ magnitudinis anguem fuisse

fuisse ut Attilii Reguli exercitum usu amnis prohiberet; multisque militibus ingenti ore correptis, compluribus cauda voluminibus elisis, cum telorum jactu perforari nequiret, ad ultimum balistarum tormentis undique petitam, filicum crebris et ponderosis verberibus procubuisse; omnibusque et cohortibus legionibus ipsa Carthagine visam terribiliorem: atque etiam cruore suo gurgitibus imbutis, corporisque jacentis pestifero afflatu vicina regione polluta, Romana inde summovisse castra: dicit belluæ etiam corium cxx pedes longum in urbem missum." VAL. MAX.

Livium vero ipsum elegantibus supplementis æmulatus est Joannes Frienshemius; audiant igitur velim lectores Frienshemium miram rem suo more diserte recitantem.

"Interea M. Regulus proxima quæque subigendo in loca pervenerat per quæ flumen Bagra da labitur: ad quod castra habentes Romanos improvise pestis et damno non mediocri, et terrore adhuc majore perculit. Magnitudinis enim portentosæ serpens aquatum profectos milites invasit; territisque et nequidquam repugnantibus multos ingentis oris hiatu forbuit: alios spirarum voluminibus et caudæ verbere obtrivit: nonnullos ipso pestilentis halitus adflatu exanimavit: tantumque negotii M. Regulo facessere potuit, ut totis viribus cum eo de possessione amnis fuerit dimicandum. Quod ubi cum jactura militum fiebat, neque vinci aut vulnerari draco potuerat, durissima squamarum lorica, quidquid telorum ingereretur, facile repellente; confugiendum ad machinas, advectisque ballistis et catapultis velut arx quædam munita, deji-
ciendus

ciendus hostis fuit. Post aliquot jaclus in vanum emissos ingens faxum spinâ dorsi perfracta, vigorem impetumque formidalis monstri resolvit. Sic quoque difficulter confectum est, tanto cum horrore legionum et cohortium, ut *se oppugnare Carthaginem, quam alteram talem bestiam malle faterentur*. Neque diutius ibi morari castra potuerunt, quin tabo infectas aquas, et omnem circa regionem fœtore jacentis pestifero adflatam fugerent. Non sine rubore aliquo humanæ superbiæ, quæ non raro viribus suis nihil negatum esse stolidè putat. Exercitum certe Romanum imperatore M. Regulo, terra marique victorem unus anguis et vivus exercuit, et interfectus submovit. Quare nec puduit Proconsulem hujus etiam hostis spolia Romam mittere, timorisque sui magnitudinem et victoriæ gaudium publico monumento fateri. Corium enim belluæ detractum in urbem devehendum curavit: quod centum viginti pedes longum fuisse dicitur; et in templo quodam suspensum, ad Numantini usque belli tempora duravisse.” JOAN. FRIENSH. Suppl. Livian.





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THE GREAT BOA.



GENERIC CHARACTER.

Transverse *Lamellæ* both on the abdomen and beneath the tail.

SPECIFIC CHARACTER.

VARIEGATED BOA with about 240 *Lamellæ* on the abdomen and 60 beneath the tail.

By those who are unacquainted with the wonders of Nature, the descriptions given by Naturalists of some of the more striking and singular animals, are received with a degree of cautious scepticism, or even rejected as exceeding the bounds of credibility. Amongst these animals may well be numbered the prodigious serpents which are sometimes found in India, Africa, and America; serpents of so great a size as to be able to ingorge even some of the larger quadrupeds, and of so enormous a length as to measure 20, 25, and 30 feet. There is reason to believe that these immense serpents are become less common now than some centuries backwards, and that in proportion as cultivation and population have increased, the larger species of noxious animals have been expelled from the haunts of mankind, and driven into the more distant and uncultivated tracts. They are still however occasionally seen, and sometimes

times approach the plantations and gardens of the districts nearest to their residence.

It is happy for mankind that these gigantic serpents are not poisonous ; they are therefore to be dreaded only on account of their vast size and strength, which latter is so great as to enable them to kill cattle, deer, and other animals by writhing themselves round them, so as to crush them to death by mere pressure ; after which they swallow them in a very gradual manner, and when thus gorged with their prey, grow almost torpid with repletion ; and if discovered in this state may without much difficulty be dispatched by shooting or by other methods.

Considered as one of the great destroyers of the animal world, this serpent must be viewed with horror ; but if we take into consideration only its form and colors, we cannot deny it a very great share of external beauty : like many of its tribe, it is apt to vary in color, and appears in a more or less vivid state according to the period of life in which it happens to be found ; but it is generally of a greyish color, variegated on the back and sides in the most curious manner with large oblong patches and spots of bright reddish brown, which are still further decorated by having black margins, surrounded both internally and externally with streaks of white and yellow : the belly is commonly of a yellowish white.

It was in all probability an enormous specimen of this very serpent that once diffused so violent a terror amongst the most valiant of mankind, and threw a whole Roman army into dismay. Historians relate
this

this surprizing event in terms of considerable luxuriance. Valerius Maximus thus mentions it from Livy, in one of the lost books of whose history it was related more at large.

“ And since we are on the subject of uncommon phenomena, we may here mention the serpent, so eloquently and accurately recorded by Livy; who says that near the river Bagrada in Africa a snake was seen of so enormous a magnitude as to prevent the army of Attilius Regulus from the use of the river; and after snatching up several soldiers with its enormous mouth, and devouring them, and killing several more by striking and squeezing them with the spires of its tail, was at length destroyed by assailing it with all the force of military engines and showers of stones; after it had withstood the attack of their spears and darts: that it was regarded by the whole army as a more formidable enemy than even Carthage itself; and that the whole adjacent region being tainted with the pestilential effluvia proceeding from its remains, and the waters with its blood, the Roman army was obliged to remove its station: he also adds that the skin of the monster, measuring 120 feet in length, was sent to Rome as a trophy.” VAL. MAX.

The learned Frienshemius, in his *Supplementa Liviana*, has attempted a more ample and circumstantial narrative of the same event, and it cannot be unsatisfactory to the reader to receive a quotation from an author, who has so happily imitated the manner of the great historian.

“ In the mean time Regulus, every where victorious,
led

led his army into a region watered by the river Bagrada, near which an unlooked for misfortune awaited them, and at once affected the Roman camp with considerable loss, and with apprehensions still more terrible; for a serpent of prodigious size attacked the soldiers who were sent for water, and while they were overwhelmed with terror, and unequal to the conflict, engulfed several of them in its enormous mouth, and killed others by writhing round them with its spires, and bruising them with the strokes of its tail: and some were even destroyed by the pestilential effluvia proceeding from its breath; it caused so much trouble to Regulus that he found it necessary to contest the possession of the river with it by employing the whole force of his army; during which a considerable number of soldiers were lost, while the serpent could neither be vanquished nor wounded; the strong armour of its scales easily repelling the force of all the weapons that were directed against it; upon which recourse was had to battering engines; with which the animal was attacked in the manner of a fortified tower, and was thus at length overpowered. Several discharges were made against it without success, till its back being broken by an immense stone, the formidable monster began to lose its powers, and was yet with difficulty destroyed; after having diffused such a horror amongst the army, that they confessed they would rather attack Carthage itself than such another monster. Nor could the camp continue any longer in the same station, but was obliged to fly; the water and the whole adjacent region being tainted with the pestiferous effluvia. A
most

most mortifying humiliation to human pride! which sometimes vainly imagines nothing capable of resisting the powers of man. Here at least was an instance of a whole Roman army under the command of Regulus, and universally victorious both by sea and land, opposed by a single snake, which conflicted with it when living, and even when dead obliged it to depart. The proconsul therefore thought it no diminution to his dignity to send the spoils of such an enemy to Rome, and to confess at once the greatness of his victory and his terror by this public memorial; for he caused the skin of the snake to be taken off, and sent to the city; which is said to have measured 120 feet: it was suspended in a temple, and remained till the time of the Numantine war." FRIENSH. SUPPL. LIV.





2

Pillar or Column twisted or plaited.

Knorr. part 5, t. 1. f. 1.

Fig. 1. The adult shell. Fig. 2. A somewhat younger shell.

VOLUTA ARAUSIACA.



CHARACTER GENERICUS.

Animal Limax..

Testa unilocularis, spiralis.

Apertura ecaudata, subeffusa.

Columella plicata: Labio Umbilicove nullo.

Lin. Syst. Nat. p. 1186.

CHARACTER SPECIFICUS, &c.

VOLUTA testa alba fasciis transversis fulvis,
columella sex-plicata.

VEXILLUM ARAUSIACUM.

Rara hæc et perelegans concha generis LINNÆANI
Volutæ nominati est species. Hanc ipsam ille nullibi
descripsit. Communiter illam appellaverunt physici
Vexillum Arausiacum. Indica est concha, et præcipue
in insula Amboyna reperitur.

Fig. 1. Testa adulta. Fig. 2. Testa junior.

PSITTACUS GLORIOSUS.



CHARACTER GENERICUS.

Rostrum aduncum : mandibula superiore mobili,
cera instructa.

Nares in rostri basi.

Lingua carnosa, obtusa, integra.

Pedes scanforii.

Lin. Syst. Nat. p. 139.

CHARACTER SPECIFICUS.

PSITTACUS macrourus sanguineus, dorso nigro
maculato, alis caudaque cyaneis.

Psittacus hic formosus plerasque sui generis antecedit pulchritudine et colorum splendore. Ad species *macrouras* seu *longicaudas* pertinet. Color ejus generalis est vivide sanguineus, corporis parte inferiore paulum pallidiore. Plumæ dorsi nigræ sunt, rubro cinctæ : tectrices alarum minores lucidissime cæruleæ : versus mediam alarum partem color cæruleus magis cyaneus est, non sine virore aliquo obscuriore : super axillas color plumarum niger in maculam transversam nigram apicibus acuminatis discurret : cauda prælonga ad imum est cuneator.

Novam Hollandiam incolit hæc avis, et magnitudine Psittacum Alexandri æquat, vel paulo superat.

Feminæ multo minus vividus est color ; dorsumque olivaceo tinctum.

THE SPLENDID PARROT.



GENERIC CHARACTER.

Bill hooked. Upper mandible moveable.
Nostrils round, placed in the base of the bill.
Tongue fleshy, broad, blunt at the end.
Legs short. Toes formed for climbing, viz. two forward and two backward.

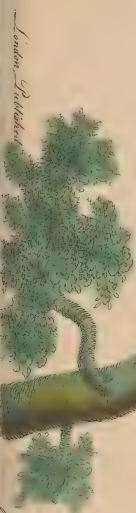
SPECIFIC CHARACTER, &c.

LONG-TAILED SANGUINE-RED PARROT, with the back spotted with black, the wings and tail bright-blue.

PENNANTIAN PARROT.

Latham's Synops. Suppl. p. 61.

This beautiful bird exceeds most of its genus in the splendor of its colors. It ranks amongst the *Pittaci Macrouri*, or Long-tailed Parrots. Its general color is a vivid sanguine-red, somewhat paler on the lower part of the body; and the feathers on the back are black, margined with red. The shoulder-feathers, or smaller coverts, are of a most brilliant blue: towards the middle part of the wing the blue becomes much deeper, and slightly tinged with green. Above the axillæ the black color of the back forms on each side a transverse



London, Published by J. E. B. Walker, 27, St. James's Street.

transverse spot with sharpened extremities. The tail is very long, and cuneiform towards the tip.

This species is a native of New Holland, and is about the size of the common Ring-Parrakeet, or rather larger. The female is much less brilliant in color, and the back is of an olive green.

STAPELIA HIRSUTA.



CHARACTER GENERICUS.

Corolla contorta.

Nectarium stellula duplex in medio corollæ.

Pentandria Digynia.

CHARACTER SPECIFICUS, &c.

STAPELIA denticulis ramorum erectis.

Lin. Spec. Plantar. p. 316.

ASCLEPIAS AFRICANA AIZOIDES, flore
pulchre fimbriato.

Comm. rar. 19. t. 19.

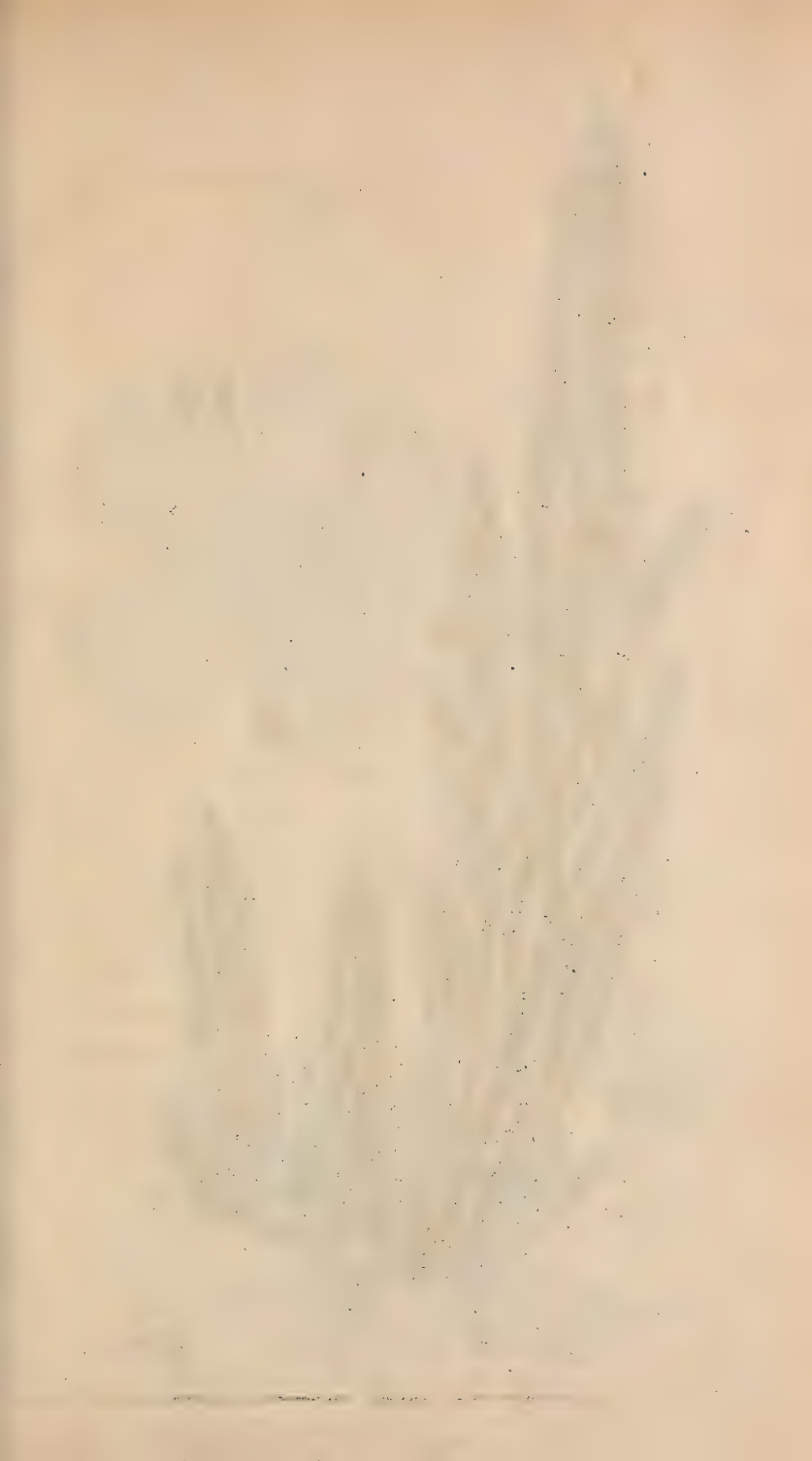
Inter pretiosissimas plantarum dotes merito numeratur odor ille gratissimus quem plurimæ emittunt, quo in colligendo, conservando, augendo, subtiliter studioseque semper laboratum est. Suave-olentium vegetabilium tanta sane est diversitas, ut odores speciatim recensere vix possibile sit. Ut taceam rosam, violam, dianthum, cæteramque copiam narium in hortis plerisque repertam, genera Diosmæ, Illicii, Nyctanthes, et Polyanthes, velut exempla suavissimæ et pollentissimæ fragrantiaë satis sit proferre.

Huic aromaticorum ubertati opponuntur exempla aliquot contrarii odoris in generibus Ari, Sterculiæ, Lobeliæ, cæterisque nonnullis; rara hæc quidem, quæ tamen satis probant Naturam in humani generis oblectatione

lectatione non semper versari. Phalli species, in sylvis, exeunte æstare, non raro conspecta, odorem quasi carnis putridæ spargendo, insecta multa carnivora, muscas præcipue vulgares, seu carnarias ad se allicit, quæ in summitate plantæ catervatim conglomerantur, liquorem glutinosum exinde copiose effluentem avidissime exugentes.

Omnes autem hæcenus cognitæ, quæ more mortui cadaveris fætere solent, planta illa in tabula depicta longe superat; cui tanta est odoris putridi graveolentia, ut e longinquo veniant muscæ vulgares seu carnariæ LINNÆI, ovaque ibi deponant; quibus exclusis, larvæ parvo tempore plerumque pereunt; qua in re unica seipsam decipere, suæque quasi frustrare consilia videatur Natura. Interdum tamen, si qua fides observatoribus, accidit ut aliæ muscarum species, carnaria multo minores, in eodem flore ova sua deponant, larvæque exclusæ, ob exiguitatem parvo cibo egentes, florem ipsum depascent; ad plenam magnitudinem perveniant, et in chrysalides convertantur, ex quibus muscæ perfectæ postea erumpunt. Ita se rem habere demonstrat experimentum a domino HILL memoratum, qui narrat larvas plurimas muscarum, hoc solo flore enutritas, omnibus vicibus et permutationibus absolutis, ad plenam et perfectam maturitatem adolevisse.

Africæ est indigena hæc planta, et in promontorio bonæ spei præcipue invenitur.





London, Published Jan 7 1839, by F. & T. Nodden & Co. No. 10, Broad Street.

FETID STAPELIA,
OR THE
CARRION-FLOWER.



GENERIC CHARACTER.

Corolla slightly twisted towards one side.

Nectary in form of a double star in the middle of the corolla.

Pentandria Digynia.

SPECIFIC CHARACTER, &c.

STAPELIA with the denticles of the branches upright.

THE CARRION-FLOWER.

The fragrance emitted by the major part of the vegetable world is such as to be regarded amongst the most elegant and valuable attributes of plants; and the ingenuity of mankind has been studiously employed in collecting, preserving, and concentrating it. So great is the variety of vegetable perfumes that it is hardly possible to enumerate the different kinds. Without particularizing the rose, the violet, the carnation, and many other common inhabitants of the garden, we might adduce the genera of *Diosma*, *Illium*, *Nyctanthes*, *Polyanthes*, and some others, as peculiar

peculiar examples of the richest and most exalted fragrance.

Amidst this profusion of sweets in the vegetable kingdom there are occasionally interspersed some examples of a contrary odor: thus some species in the genera of *Arum*, *Sterculia*, *Lobelia*, and a few others, are convincing proofs that Nature does not always accommodate her productions to the immediate gratification of the human sense.

A species of *Morell*, not uncommon in woods towards the latter part of the summer, has a smell so much resembling that of putrid animal matter, as to attract several species of carnivorous insects, and particularly flies, which are generally observed settled in great numbers on the top of the plant, and eagerly feasting on the glutinous moisture with which it abounds.

But of all vegetables yet known, which are possessed of a smell similar to that of animal substances, the plant here figured is by far the most remarkable; and when in a state of florescence, diffuses a scent so powerfully cadaverous as to allure the common flesh-fly, or blow-fly to deposit its eggs on the flower, where they are hatched, and the young larvæ, for want of proper nutriment, commonly perish soon afterwards; and thus Nature in this single instance, almost seems to have deceived herself. If however we may rely on some observations, it happens sometimes that other species of flies much smaller than the common flesh-fly, deposit their eggs in the flower, and when hatched, the larvæ being very small, and not requiring much food,
do

do actually find a sufficient nutriment from the flower itself, till the time of their change to chrysalis arrives ; and after the usual period become complete flies ; and this appears to have been the case in an instance recorded by the late Sir JOHN HILL, where several larvæ of flies are said to have passed through all their changes, though nourished solely by the flower of this plant.

It is a native of Africa, and is principally found at the Cape of Good Hope.

SOREX BICOLOR.



CHARACTER GENERICUS.

Dentes Primores superiores duo bifidi.

Inferiores quatuor : intermediis brevioribus.

Laniarii utrinque plures.

Lin. Syst. Nat. p. 73.

CHARACTER SPECIFICUS, &c.

SOREX cauda mediocri, corpore supra nigricante, subtus albicante.

SOREX cauda mediocri subnuda, corpore nigricante, subtus cinereo.

Erx. Mamm. p. 124.

MUSARANEUS dorso nigro ventreque albo.

Merret. pin. p. 167.

Inter quadrupedes Britanniae rariores merito numeratur parvulus hic Sorex, ab illis solummodo qui praecipuam scientiae naturali navant operam, observari solitus. In Europa fere omni nascitur, et ut docet dominus PALLAS, in Sibiria frequenter reperitur. In Gallia annum circiter millesimum septingentesimum quinquagesimum sextum a domino DAUBENTON detectus et descriptus est. In Anglia longe antea cognitus,

tus, inter animalia tamen deperdita habebatur, donec annum circiter millesimum septingentesimum sexagesimum octavum, juxta cœnobium de Reevesby in comitatu Lincolniensi iterum deprensus sit. Vix dubitandum est quin in aliis multis Angliæ partibus possit inveniri. Cur tamdiu incognitus manserit in causa esse videtur obscuritas latibulorum, (amat enim ripas fluviorum, locaque aquosa,) nec non communis hujusmodi rerum incuria. In certis Buckinghamiæ locis nequaquam rarus est, et Oxoniæ vicinio: sedem vero sibi potissimum delegit in aggeribus fluminis Collegii Beatae Mariæ Magdalenæ ambulacra circumeuntis; ubi non raro mortuus jacet, quod et Sorici Araneo LINNÆI, seu vulgari sæpius accidit, a qua specie facillime primo intuitu, colore nempe longe diverso, dignosci potest.



London, Published for J. W. & J. G. by F. D. Nodder 1798 No. 1. Broom Street.

THE
WATER-SHREW.



GENERIC CHARACTER.

Two *cutting Teeth* in each jaw.
Long slender *Nose*: small *Ears*.
Five *Toes* on each foot.

Pennant.

SPECIFIC CHARACTER, &c.

SOREX black above, whitish beneath.

MUSARAIGNE D'EAU.

Daubenton Mem. de l'Acad. de Paris, 1756,
p. 211. t. 5. f. 2.

WATER-SHREW.

Pennant Hist. Quadr. p. 480.

This animal may be numbered amongst the rarer quadrupeds of Britain, and is but very seldom noticed except by those who pay a more than ordinary degree of attention to the natural productions of our kingdom. It appears to be a native of almost every part of Europe, and from the observations of Dr. PALLAS it should seem to be very well known in Siberia. In France it was discovered and described by Mr. DAUBENTON in the year 1756. In England it had long before been noticed;

ticed; but was considered amongst the lost quadrupeds of our island till about the year 1768, when it was again observed in the neighbourhood of Reevesby-Abbey in Lincolnshire. It may probably be discovered in many other parts of the kingdom, and its continuing so long undistinguished must partly be ascribed to the obscurity of its retreats, under the banks of rivers, and in watery places, and partly to a mere want of attention to objects of this nature. In some parts of Buckinghamshire it is not very uncommon, it is also found in the neighbourhood of Oxford; and it seldom fails to reside in the banks of the river surrounding the water-walks of Magdalen College; and is not unfrequently found dead by the edges of the walks, in the same manner as the common Shrew, or *Sorex Araneus* of LINNÆUS, from which it may always be most readily distinguished by its very different color.

LOXIA JUGULARIS.



CHARACTER GENERICUS.

Rostrum conico-gibbum, frontis basi rotundatum
versus caput : Mandibula inferior margine
lateralis inflexa.

Nares in basi rostri.

Lingua integra.

Lin. Syst. Nat. p. 299.

CHARACTER SPECIFICUS.

LOXIA testaceo-ferruginea, nigro undulata, fascia gulæ sanguinea.

Africam incolit hæc avicula. Coloris est Castanei ;
feu griseo-ferruginei, maculis lunatis nigris eleganter
undulati : Decoratur gula fascia lata transversa vivide
coccinea.

T H E
RED-THROATED GROSSBEAK.



GENERIC CHARACTER.

Bill strong, thick, and convex.

Nostrils small.

Tongue truncated.

SPECIFIC CHARACTER, &c.

PALE-FERRUGINOUS LOXIA, undulated
with black, with a blood-red fascia on the
throat.

FASCIATED GROSSBEAK.

Lath. Synops. 2. p. 156

THE CUT-THROAT SPARROW.

Lev. Mus.

This bird is a native of Africa. Its colour is a palish chestnut, or grey ferruginous, elegantly undulated with semi-lunar marks of black. The throat is ornamented with a broad transverse band of the deepest vivid red.



London, Published Feb^y 1st 1791, by F. T. Nodder & Co.

N^o 5 Brewer Street.

CHÆTODON ARMATUS.



CHARACTER GENERICUS.

Dentes setacei, flexiles, confertissimi, numerosissimi.

Membrana branchiostega radiis sex.

Corpus plerumque fasciatum. *Pinna* dorsi anique carnosæ squamosæ.

CHARACTER SPECIFICUS.

CHÆTODON ALBESCENS, corpore fasciis septem nigris, spinis pinnæ dorsalis sex, tertia longissima.

Novam et perelegantem generis Chætodontis speciem dat tabula inspicendam. Vix quatuor uncias superabat speciminis longitudo unde hæc nostra figura delineata est. Color huic Chætodonti est argenteo-albus, dorso sub-cæruleo. Fasciæ corporis transversæ nigerrimæ sunt : pinnæ caudaque pallide fusca : spina seu radius tertius pinnæ dorsalis anterioris cæteris multo longior. Maris Australis incolæ est hic piscis ; prope novam Hollandiam captus est, indeque nuperis navigiis ad nos allatus.

THE
LONG-SPINED CHÆTODON.



GENERIC CHARACTER.

Teeth setaceous, flexible, closely set, extremely numerous.

Branchiostegous membrane with six rays.

Body generally fasciated. Dorsal and anal *Fins* somewhat fleshy and coated with scales.

SPECIFIC CHARACTER.

WHITISH CHÆTODON, with seven black bands on the body, six spines on the dorsal fin, the third very long.

This fish is a new and very elegant species of the genus Chætodon. The total length of the specimen from which the figure was taken was scarcely more than four inches; the color is a silvery white; darker, and of a blueish tinge on the back: the transverse fasciæ or bands are of a deep black: the fins and tail are of a pale brown: the third ray or spine of the first dorsal fin is much longer than the rest. It is a native of the Southern Ocean, and was brought from New-Holland in one of the last voyages.





BRADYPUS URSINUS.



CHARACTER GENERICUS.

Dentes Primores nulli utrinque.

Laniarii obtusi, solitarii, molaribus longiores.

Molares utrinque 5 vel 6,

CHARACTER SPECIFICUS.

BRADYPUS niger hirsutissimus, naso elongato nudo.

Inter plurima quæ physicis nuperrime innotuerunt, principem sibi locum non immerito vindicat animal in tabula depictum ; quod fortasse nonnullis videatur novum omnino per se genus constituere. Opinione tamen firmatus celeberrimi PENNÁNTI, cujus comes, in illius characteres primum sedulo inquisivi, ad genus Bradypì referendum cenfeo.

Habitu corporis externo ad ursum vulgarem tam prope accedit Bradypus Ursinus, ut pro Ursi specie a quibusdam habitus sit. Vetant tamen omnino dentes, unguesque peculiariter formati, cum cæteris characteribus, ut Ursi speciem esse pronunciem.

Magnitudine est ursi vulgaris, exceptoque vultu, seu rostro, villo nigro, longo, et hirsuto totus obtegitur ; qui tamen super collum et tergum multo longior est quam in cætero corpore. In partibus corporis anterioribus antrosum spectat hirsutia ; in posterioribus retrorsum,

trorsum. Oculi minimi : aures parvæ, et denso capitis vellere fere absconditæ. Dentes incisores nulli sunt. Utrique maxillæ insunt duo dentes laniarii modici : qui in maxilla superiore siti sunt uncias circiter duas a se invicem distant ; qui in inferiore, paulo minus. In maxilla superiore insunt dentes molares tres utrinque, quorum duo maxime remoti seu interiores sunt quasi duplices et lobati ; alter simplex est. In inferiore sunt utrinque sex molares, quorum remotissimus seu interior simplex est ; duæ huic proximi duplices, cæterique tres simplices. Linguae lævi nihil peculiare est. Rostrum elongatum est, et tensile, videturque cartilagine transversa et mobili interius esse instructum. Ungues pedum anticorum, qui quinque, sunt validissimi, modice incurvati et acuminati : pedum posteriorum ungues breviores sunt et potius rotundati : Cauda brevissima vix distingui potest.

Ab interiore Bengala allatus est *Bradypus Urfinus*, et quartum jam annum excessit. Primo detectus Ursum Lotorem LINNÆI, qui *Raccoon* vulgo dicitur, magnitudine vix superavit ; illumque latratum quasi caninum emisisse asserunt custodes. Vox illi nunc nulla est præter rugitum brevem et abruptum, qui non nisi laceffito et irritato prodit. Mitis est et tranquillæ ingenii. Vegetabilibus et lacticiiniis vescitur : gaudet pomis, carnesque fastidit, nisi forte tenerrimas. Medullam tamen ex osse lubentissime exugit. Melle, saccharo, et omni-genis cupediis delectatur. Motus huic non ut in aliis ejusdem generis, tardissimus, sed modicus. Solet iterum atque iterum, more canis cubitum ituri, circumgyrare.

gyrare. Terram fcalpere, et sub humo velle fe occultare dicitur, unde a repertoribus primo effoffus eft.

Ab ingeniofo Domino CATTON figuram hanc noſtram mutuati fumus, qui quicquid animali proprium et fingulare eft optime expreſſit.

In altera tabula ringens exhibetur caput, ut fitus dentium oftendatur, nec non ut roſtrum ſuperius, ope cartilaginis internæ egregie flexibile, quodammodo demonſtretur.









THE
URSINE BRADYPUS,
OR
URSIFORM SLOTH.



GENERIC CHARACTER.

Cutting-Teeth none in either jaw.

Canine-Teeth solitary, longer than the grinders.

Grinders in each jaw 5 or 6.

SPECIFIC CHARACTER.

BLACK BRADYPUS with very long shaggy hair, and naked lengthened snout.

Amongst the new species of animals with which Zoology has been lately enriched, the creature here figured claims a distinguished place; and it may be doubted whether it might not with great propriety constitute a new genus. In compliance however with the opinion of Mr. PENNANT, in whose company I first made an accurate examination of its characters, I have here placed it as a species of the genus *Bradypus*, or Sloth.

In its habit, or general appearance, it has a striking resemblance to the common bear, and it has even been considered as a species of bear by some naturalists.

Its teeth, however, and the peculiar formation of its claws, with several other particulars, absolutely forbid it to be any longer considered as a species of *Ursus*.

The animal is about the size of a bear, and is covered all over, except on the face, or rather the snout, with long, shaggy, black hair, which on the neck and back is much longer than in other parts. On the fore part of the body the hair points forwards, and on the hinder part backwards. The eyes are very small; the ears rather small, and partly hid in the long hair of the head. It is totally destitute of incisores or front-teeth: in each jaw are two canine teeth of a moderate size: those in the upper jaw are situated at the distance of two inches from each other: those in the lower jaw are placed somewhat less remote. The molares or grinders in the upper jaw are three on each side; of which the two most remote are double, or lobed: the remaining one simple. In the lower jaw there are on each side six grinders, of which the most remote or backward is simple; the two next double, and the three remaining ones simple. The tongue is smooth, and has nothing remarkable in its appearance. The nose, or snout is of a somewhat elongated form; it also appears as if furnished with a sort of transverse joint, or internal cartilage, which admits of a peculiar kind of motion in this part. The claws on the fore-feet are five in number, and are excessively strong, moderately crooked, and sharp pointed: those on the hind-feet are shorter, and of a rounder shape. The tail is very short, and inconspicuous.

This

This animal was brought from the interior parts of Bengal, and is now somewhat more than four years old. When first taken, it is said to have been about the size of a raccoon, and is reported to have sometimes barked in the manner of a dog. Its voice however at present is rather a sort of short, abrupt roar, which it emits when much disturbed or irritated. It is gentle and good-natured : feeds chiefly on vegetable substances and milk ; and is fond of apples, and does not willingly eat animal food, except of a very tender nature, as marrow, which it readily sucks from a bone presented to it. It is also delighted with honey, sugar, and other sweets. Its motions are not as in others of this genus, slow and languid, but moderately lively, and it appears to have an habit of turning itself round and round every now and then, as if for amusement, in the manner of a dog when lying down to sleep. It is said to have a propensity to burrowing under ground ; and that it was at first dug out of its retreat by those who discovered it.

The figure here given is copied from a drawing by Mr. CATTON, an artist who has been peculiarly happy in expressing the appearance of the animal.

In the additional plate is represented a view of the head in a ringent state ; in order to shew not only the form and disposition of the teeth, but also in some measure the singular flexibility of the upper part of the snout, as if furnished with a joint or internal cartilage.

PETAURUS AUSTRALIS.



CHARACTER GENERICUS.

Dentes varii in variis.

Corpus cute volatili cinctum.

CHARACTER SPECIFICUS.

PETAURUS supra nigricans, subtus albicans,
pollicibus plantarum rotundatis.

Arbitrentur fortasse Physici debere Petaurum Australem genus potius per se constituere, quam inter novas species numerari. Cum vero generum institutio ob hanc vel illam peculiarem notam, pedum nempe seu dentium formam, scientiam naturalem sæpe perturbet et obscuret, molestiamque potius quam auxilium tyroni afferat; fatius duxi Petaurum Australem velut speciem Sciuri volantis describere. Sciurosque ipsos volantes ab aliis disjungere, et in genere distincto nomine Petauri reponere. Quamvis enim a LINNÆO in eodem genere cum Sciuris aliis numerentur, fatendum tamen est, membranam, seu cutim extensam, cujus ope volitant, adeo esse singularem et propriam, ut non immerito ad genus separatum possint pertinere.

Hoc tamen fortasse nonnullis videatur curiose potius quam utiliter factum.

Totius igitur generis Petauri, species hic depicta non tantum maxima est, sed et elegantissima. Species

D d

præterea

præterea est nova, de Nova Hollandia non ita pridem perita. Magnitudine cuniculo juniori vix cedit.

Color corporis superni est fusco-cinereo-nigricans, inferioris fere albidus. Pilus est præter modum mollis et elegans; cujus si copia sufficeret, nescio annon aliorum animalium vellera, utcunque pretiosa, fordescerent. Pedum posticorum forma singularis est: Pollex seu digitus primus rotundatus est, ungue complanato et rotundato; cum aliis omnibus digitis ungues acuminati sint. Digniti quoque duo intermedii, seu pollici proximi, cute communi ad ipsos ungues conjunguntur. Cauda longa pilo mollissimo et delicatulo densissime vestitur.

In narratione itineris australis a Domino WHITE, hoc animal nomine *Hepoona Roo* distinguitur, et pulcherrime a Domino CATTON depingitur: figuram igitur ibi datam, utpote eximiam, in hoc nostro opere imitamur.



THE SOUTHERN PETAURUS.



GENERIC CHARACTER.

Teeth differing in the different species.

Body furrounded by a flying-skin.

SPECIFIC CHARACTER, &c.

PETAURUS blackish above, whitish below,
with the thumbs of the hind-feet rounded.

HEPOONA ROO.

White's Voyage to Botany Bay.

It may perhaps be doubted whether this animal might not constitute a genus per se, rather than be regarded as a species merely : but as the institution of genera from two or three particular circumstances only ; *e.g.* a peculiarity in the teeth, claws, &c. frequently throws much confusion on natural history, and rather tends to embarrass than instruct a student in the science, I have thought it best to describe this animal as a species of flying-squirrel, and to separate the flying-squirrels from the genus *Sciurus*, with which LINNÆUS had conjoined them, and to form them into a genus by the name of *Petaurus*.

This perhaps may be thought an unnecessary piece of exactness ; yet there is something so peculiar in the expanded processes of skin by which the flying-squir-

rels are distinguished, that they may properly enough be allowed to form a distinct genus.

Of all the species then of this genus the animal here figured is the largest and the most elegant : it is also a new species ; having been brought from New Holland during the late voyages.

Its color is a very fine fable or deep grey-brown above, while the lower surface is nearly white. The fur is of the most exquisite softness and elegance, and if the animal could be procured in sufficient plenty, would bid fair to supersede the richest furs hitherto in use. The structure of the hind foot in this species is remarkable ; the thumb or first toe being of a rounded form and furnished with a flattened nail, while the remaining toes have sharp claws ; and the two second toes, or those next the thumb, are united in one common covering or skin to the very claws : the tail is long, and is very thickly cloathed with fur of the softest and most delicate appearance.

In Mr. White's Journal of a voyage to New South Wales, this animal is distinguished by the title of *Hepoona Roo*, and is beautifully figured by Mr. CATTON ; which figure, on account of its excellency, we have not scrupled to copy in the present work.

SIREN LACERTINA.



CHARACTER GENERICUS.

Corpus bipedum, caudatum, nudum.

Pedes brachiati, unguiculati.

Lin. Syst. Nat. vol. 1. pt. 2. *Addend.*

CHARACTER SPECIFICUS, &c.

SIREN corpore anguilliformi, branchiis ramosis.

SIREN LACERTINA.

Amœn. Acad. vol. 7. p. 311.

Sirenem a reliquis animalibus adeo eminenter distinxit Natura, forma ambigua, et dubiis characteribus, ut celeberrimus LINNÆUS novum illi Amphibiorum ordinem nomine *Meantes* instituerit ; qui tamen novus ordo non inter alia Amphibia in Systemate Naturæ invenitur, sed in nota ad finem partis secundæ tomi primi istius operis exstat.

Genus cui Siren affinitate summa conjungi videtur, est genus *Lacerta* : lacertæ enim larvam valde repræsentat, et dubitant nonnulli an talis revera sit nec ne : characteres tamen omnes videntur esse animalis perfecti et adulti, nec hætenus visa est Siren in alia aliqua forma statumque. Pedes tantum duos habet, sine ullis pedum posteriorum vestigiis ; illosque unguibus munitos, cum larvarum omnium lacertarum, hætenus cognitæ, pedes sunt, (lingua LINNÆANA) mutici, sive unguibus

unguibus destituti. Os dentium parvulorum seriebus pluribus munitur.

Singulare hoc animal Americam Septentrionalem inhabitat, et in Carolina Australi præcipue invenitur, in locis uliginosis et aquosis minime infrequens, sub aqua plerumque degens, interdum vero in terram progrediens. Vocem habet stridulam, sive cantillantem, quam ob causam a LINNÆO nomine Sirenis distinguitur.

A Domino GARDEN, medico in Carolina per multos annos celeberrimo, primo detectum fuit descriptumque; qui etiam specimina nonnulla ad LINNÆUM misit. LINNÆUS in epistola sua ad Dominum GARDEN de Sirene, affirmat nullum aliud unquam animal se adeo torsisse, nec aliud se plus velle, quam veram istius naturam optime callere. Non silendum est Sirenem in terram modica vi jactatam, in partes tres vel quatuor diffilire, quod aliquibus etiam serpentibus evenit.

In Actorum Anglicorum volumine quinquagesimo sexto describitur Siren a Domino ELLIS, qui etiam figuram addidit, quæ adeo ad normam animal exprimit, ut potius visum sit eam ipsam imitari, quam novam, diverso situ, effingere. Summam Sirenis larvæ lacertæ similitudinem demonstrat triplex branchiarum ramosarum utrinque in collo par, ut sit in larva lacertæ vulgaris aquaticæ. Species lacertæ cui Siren maxime videtur affinis, est lacerta a LINNÆO *Teguixin* nominata. Ad longitudinem fere duorum pedum crescit Siren.



THE SIREN.



GENERIC CHARACTER.

Body two-footed, tailed, naked.

Feet brachiate (*i. e.* placed in the manner of arms), and furnished with claws.

SPECIFIC CHARACTER.

SIREN with an eel-shaped body, and ramified branchiæ, or respiratory organs.

The Siren stands eminently distinguished in the list of animals by the ambiguity of its characters, which are such as to have induced the great LINNÆUS to institute for it a new order of Amphibia, under the title of *Meantes* ; an order however which does not stand amongst the Amphibia in the *Systema Naturæ*, but is mentioned in a note at the end of the second part of Vol. I. of that work.

The genus with which the Siren has evidently the greatest possible affinity, is that of *Lacerta* or Lizard. It even very much resembles the larva, or first state of a lacerta ; and it is still doubtful whether it may not really be such ; but it has never been observed in any other state, and it has always two feet only, without any appearance of a hind-pair. It likewise has all the characters of an animal in its complete state ; the feet in particular, are armed with claws, whereas the larvæ of all the lacertæ are without claws, or in the LINNÆAN phrase, *digitis muticis*. The mouth has several rows of smallish teeth.

This

This most singular animal is a native of North America, and the part where it has principally been found is the province of South Carolina, where it is not uncommon in muddy and swampy places, living generally under water, but sometimes appearing on land. It has a sort of squeaking or singing voice, for which reason LINNÆUS has applied to it the name of Siren.

It was first discovered by the ingenious Dr. GARDEN, who resided long in South Carolina, and who sent an account of the animal, accompanied with specimens, to LINNÆUS. LINNÆUS in his letter to Dr. GARDEN on this subject, declares that nothing had ever exercised his thoughts so much, nor was there any thing he so much desired to know as the real nature of this extraordinary creature. It is remarkable that the Siren, when thrown on the ground with a degree of violence, breaks in three or four pieces; in which particular it resembles some of the serpent tribe.

In the fifty-sixth Volume of the Philosophical Transactions is an account of the Siren by the late Mr. ELLIS, illustrated by a figure which so very accurately expresses the animal, that we have not scrupled to copy that figure, rather than to give a new one in a different posture. What causes this animal to approach very nearly to the appearance of the larva of a lacerta, is, that it is furnished on each side the neck, with three pair of ramified branchiæ, in the same manner as the larva of the common water-newt. The species of lacerta to which it seems most allied is the Lacerta Teguixin of LINNÆUS. It grows to the length of nearly two feet.

GRYLLUS MIGRATORIUS.



CHARACTER GENERICUS.

Caput inflexum, maxillosum, palpis instructum.

Antennæ setaceæ, seu filiformes.

Alæ quatuor, deflexæ, convolutæ: inferiores plicatæ.

Pedes postici saltatorii. *Ungues* ubique bini.

Lin. Syst. Nat. p. 693.

CHARACTER SPECIFICUS, &c.

GRYLLUS thorace subcarinato: segmento unico, capite obtuso, maxillis atris.

Lin. Syst. Nat. p. 700.

GRYLLUS thorace subcarinato: segmento unico, mandibulis cæruleis.

Fabr. Spec. Inf. tom. 1. p. 365.

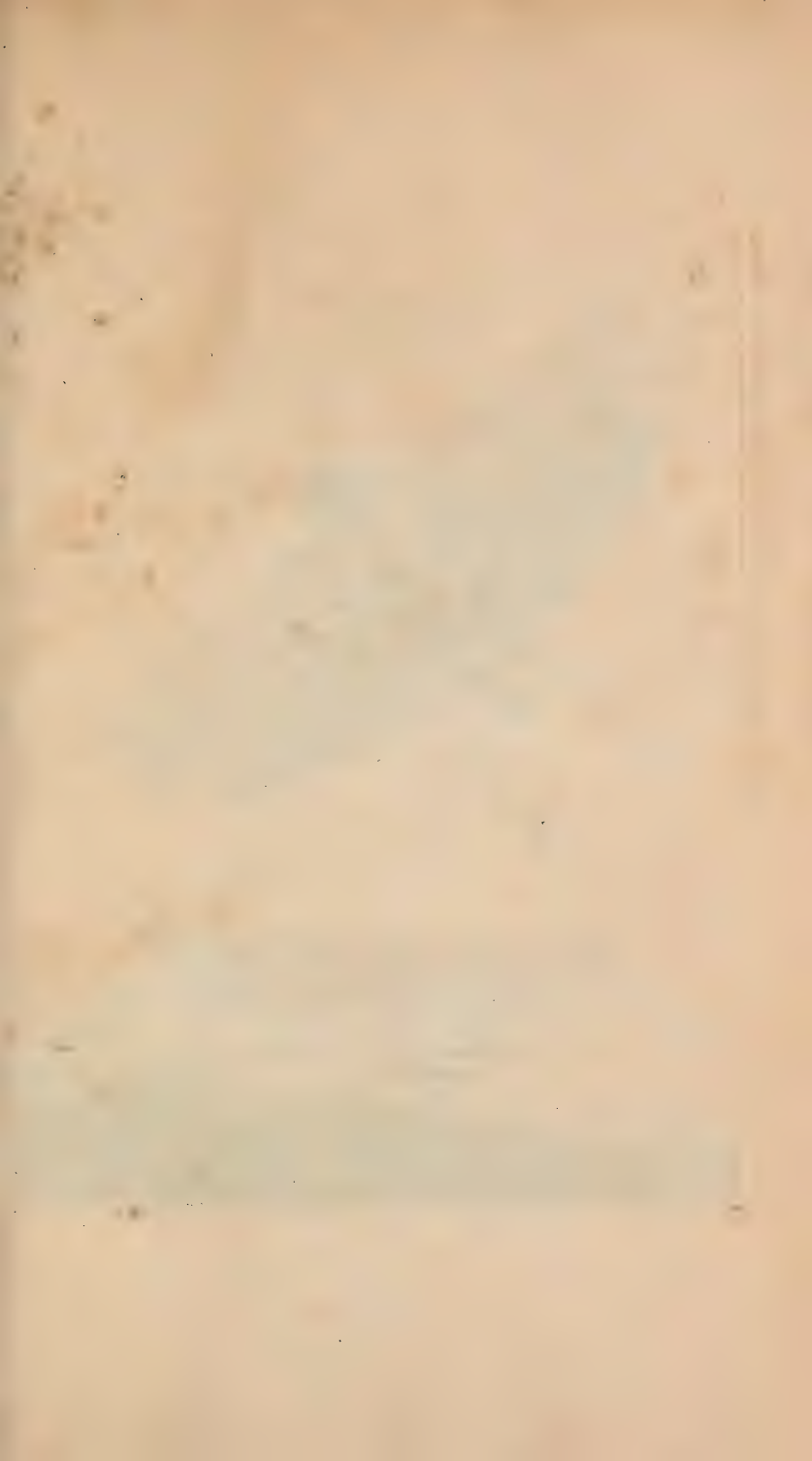
Præter omnia insecta quæ fruges devorando hominum misérias augere solent, Grylli, sive Locustæ ut communiter dicuntur, maxime metuendam stragem nobis inferunt. In calidioribus terræ partibus, Africæ præcipue et Orientis regionibus, edacissimorum horum animalium innumeræ exurgunt catervæ, quæ supra fidem omnia devastant; tractus per quos volitant, fere desolant, et spatio brevi amœnissimas et fertilissimas provincias in deserta convertunt; dum densissimo eorum

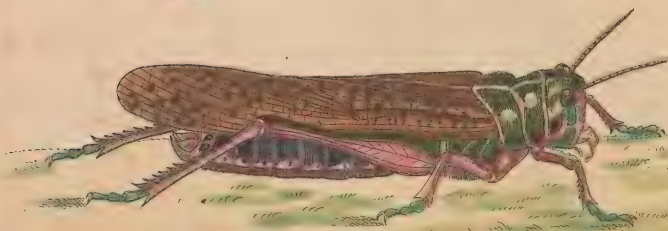
rum agmine ipse dies adimitur. Dubitari pene possit, sintne locustæ nocentiores vivæ an mortuæ; e mortuorum enim millibus tanta exoritur putredo, ut incipientis pestis una e causis valentissimis censeatur. Locustarum plurimæ sunt species, quarum quæ maxime fortasse vorax et exitiosa est ea in tabula depicta, quæ *Gryllus Migratorius LINNÆI*. Plerumque coloris est subfusi, sed maculis obscurioribus variati; et in quibusdam corporis partibus coloris est rubentis, seu potius carnei; crura autem plerumque sunt subcærulea. Anno millesimo septingentesimo quadragesimo octavo, in varias Europæ partes irrupit hæc species, sed in catervis sparsis et diffractis. In Germaniam, Galliam, et Angliam involabant, et in urbe ipsa Londini ejusque vicinio plurimæ reperiiebantur hujusmodi locustæ: brevi tamen spatio periere, vix ulla agris illata injuria. Maxima omnium specierum hætenus cognitarum est *Gryllus cristatus LINNÆI*, qui insectum jam descriptum mole quincuplici vel etiam sextupla superat; quique cum aliis majoribus hujus generis, in nonnullis Orientis regionibus pro cibo usurpari solitus est. Non tantum recentes, sed et sale conditæ comeduntur hæc locustæ, et in foro publico venales præstant in oppidis Levantinis. Substantia tamen earum pergracilis est, præcipue insectorum marium; nam fœminæ ob ovarium paulo plenior emescam suppeditant. Notissimum est multum disputasse theologos de loco in scriptis evangelicis, ubi dicitur JOANNEM BAPTISTAM locustis et melle sylvestri vitam sustinuisse, quorum nonnulli per verbum *ακριδας*, teneras tantum plantarum summitates intelligi voluerunt. Cum tamen probe com-

pertum

pertum sit, Arabas hisce animalibus vel nunc pro cibo uti, vix egere videtur illa vox ulla alia interpretatione præter communem et vulgarem. Cur enim miremur sanctum illum et abstemium prophetam, cum ab inani- bus mundi gaudiis se procul subduceret, cibo usum fu- isse non sane inter dapes lautiores numerando, sed illo tantum qui in locum potioris escæ suffectus sit? Ut hanc conjecturam firmemus, testimonium Domini HAS- SELQUIST liceat nobis proferre, qui de hac ipsa re ita lo- quitur. “ Qui infectis virum hunc sanctum vesci soli- tum fuisse negant, aiunt cibum e locustis paratum ig- notum prorsus esse et inusitatum. Si vero hi in Ægyp- tum, Arabiam, aut Syriam migrarent, longe aliter de hac re sentirent: certis enim temporibus locustas as- fatas communiter comedunt Arabes, nec dubitandum est illis tempore quo vixit JOANNES BAPTISTA, pro ci- bo fuisse. Præterea his locis mores antiqui non facile dilabuntur, nec BAPTISTÆ cibus mirus aut insolitus jam reputatur. Presbyter etiam Græcus, nequaquam indoctus, mihi pro vero affirmavit ecclesiam suam per verbum *αἰσίδας* locustas semper intellexisse; risitque ipse cum a me audiret nostros interpretes plantam aut avem illo verbo significari conjecisse. ”







London: P. Colclough, North Street, in P. P. Ascher's, & Co. 1858.

THE
MIGRATORY,
OR,
WANDERING LOCUST.



GENERIC CHARACTER.

Head inflected, armed with jaws, and furnished with palpi or feelers.

Antennæ either setaceous, or filiform.

Wings four, deflected, convolute; the inferior ones plaited.

Hind-Feet formed for leaping. *Claws* on all the feet double.

SPECIFIC CHARACTER.

GRYLLUS with subcarinated thorax with a single segment, obtuse head, and blackish or blueish jaws.

Of all the insects which are capable of adding to the calamities of mankind by devouring the products of the earth, locusts seem to possess the most formidable powers of destruction. Legions of these voracious creatures are from time to time produced in various parts of Africa and the Eastern World, where the havoc they commit is almost incredible. They carry desolation with

with them wherever they pass, and in the short space of a few hours change the most fertile provinces into the appearance of a barren desert ; while the air is darkened by their numbers. Nay even when dead they are still terrible, since the putrefaction which arises from their inconceivable number, is such that it has been regarded as one of the principal causes of a beginning pestilence. There are a great many different species of locusts. One of the most destructive is the *Gryllus Migratorius* of LINNÆUS, or the Wandering Locust, here represented. It is generally of a brownish color, varied with spots of a deeper cast, and in some parts with pale red or flesh-color, and the legs are commonly blueish. In the year 1748 this species appeared in irregular flights in several parts of Europe ; as in Germany, France, and England, and in London in particular, and its neighbourhood, great numbers were seen : they perished however in a short time, and were not productive of any mischief. The largest species of locust yet known is the *Gryllus Cristatus* of LINNÆUS, which is five or six times as large as the species just described ; and which, together with some other of the larger kind, is made use of in some parts of the world as an article of food. They are eaten both fresh and salted, in which last state they are publickly sold in the markets in some parts of the Levant. The quantity of edible substance which they afford is but small, especially in the male insects ; but the females, on account of the ovaries, afford a more nutritious sustenance. - It is well known that different interpretations have sometimes been given of the passage
in

in the sacred writings in which JOHN THE BAPTIST is said to have fed on locusts and wild honey ; and the word *axipdas* has been supposed to mean the young shoots of vegetables, rather than locusts ; but since the fact is well established, that these insects are still eaten by the inhabitants of the East, there seems not the least reason for admitting any other interpretation than the usually received one : Why should we wonder that the abstemious prophet, during his state of solitary seclusion from the commerce of the world, should support himself by a repast which is to be numbered not amongst the luxuries of life, but merely regarded as a substitute for food of a more agreeable nature ? We may also adduce, in support of this idea, the testimony of HASSELQUIST, who thus expresses himself on this very subject. “ They who deny insects to have been the food of this holy man, urge, that this insect is an unaccustomed and unnatural food ; but they would soon be convinced of the contrary, if they would travel hither, to Egypt, Arabia, or Syria, and take a meal with the Arabs. Roasted locusts are at this time eaten by the Arabs at the proper season, when they can procure them ; so that in all probability this dish has been used in the time of St. JOHN. Ancient customs are not here subject to many changes, and the victuals of JOHN are not believed unnatural here ; and I was assured by a judicious Greek priest, that their church had never taken the word in any other sense, than that of locusts ; and he even laughed at the idea of its being a plant or a bird.”

HASSELQUIST'S *Travels*, *Eng. Translation*, p. 419.

MUSCICAPA PORPHYROBRON- CHA.



CHARACTER GENERICUS.

Rostrum subtrigonum, utrinque emarginatum,
apice incurvo; *vibrissæ* patentès versùs fauces.
Nares subrotundæ.

Lin. Syst. Nat. p. 324.

CHARACTER SPECIFICUS.

MUSCICAPA nigra, gula purpurea.

Rara hæc avis Americam Australem, et præcipue
Cayanam inhabitat. Nigra est, excepta gula, seu colli
parte anteriore egregie purpurea. Femina penitus
nigricat. Magnitudine merulam vulgarem fere æquat.

THE
PURPLE-THROATED FLY-
CATCHER.



GENERIC CHARACTER.

Bill somewhat trigonal, emarginated on each side,
with incurved tip ; furnished with spreading
vibrissæ or whiskers towards the mouth.

Nostrils roundish.

SPECIFIC CHARACTER, &c.

BLACK FLY-CATCHER, with purple throat.

PURPLE-THROATED FLY-CATCHER.

Lath. Synops. 4. p. 365.

PIAUHAU.

Buff. Ois. 4. p. 588.

This rare and curious bird is a native of South America, and is principally found in Cayenne. It is entirely black, except on the fore-part of the neck, which is of a rich and deep purple. The female is totally black : its size is nearly that of a black-bird.



8.1.

London: Published by J. G. & J. P.

By J. G. & J. P. No. 5. Avenue of the

ACARUS VEGETANS.



CHARACTER GENERICUS.

Pedes octo.

Oculi duo ad latera capitis.

Tentacula duo, articulata, pediformia.

Lin. Syst. Nat. p. 1022.

CHARACTER SPECIFICUS.

ACARUS crustaceus rufus marginatus convexus,
subtus planus.

Lin. Syst. Nat. tom. 3. p. 226.

Quod physicis haud omnino ingratum esset me facturum arbitratus sum si insectum illud singulare a LINNÆO *Acarus Vegetans* nuncupatum, ob exiguitatem antehac pene neglectum accurate describi et depingi curarem. Aliorum insectorum corporibus plerumque se affigit hujusmodi acarus, illorum præcipue quæ *Coleoptera* LINNÆI constituunt, quæque communiter Scarabæi dicuntur.

Sæpissime illum comperi corpori aut elytris adhaerentem Histeri Unicoloris LINNÆI, parvi nempe insecti coleoptrati, in hortis, ineunte vere, minime rari. Frequenter etiam eum vidi scarabæo stercoreario LINNÆI adjunctum, et altero Scarabæo minori, fuscæ nempe varietati *fmietarii* ejusdem auctoris, mensibus Aprilis et Maii, in fimo bovino ut plurimum obvii.

Mirandus

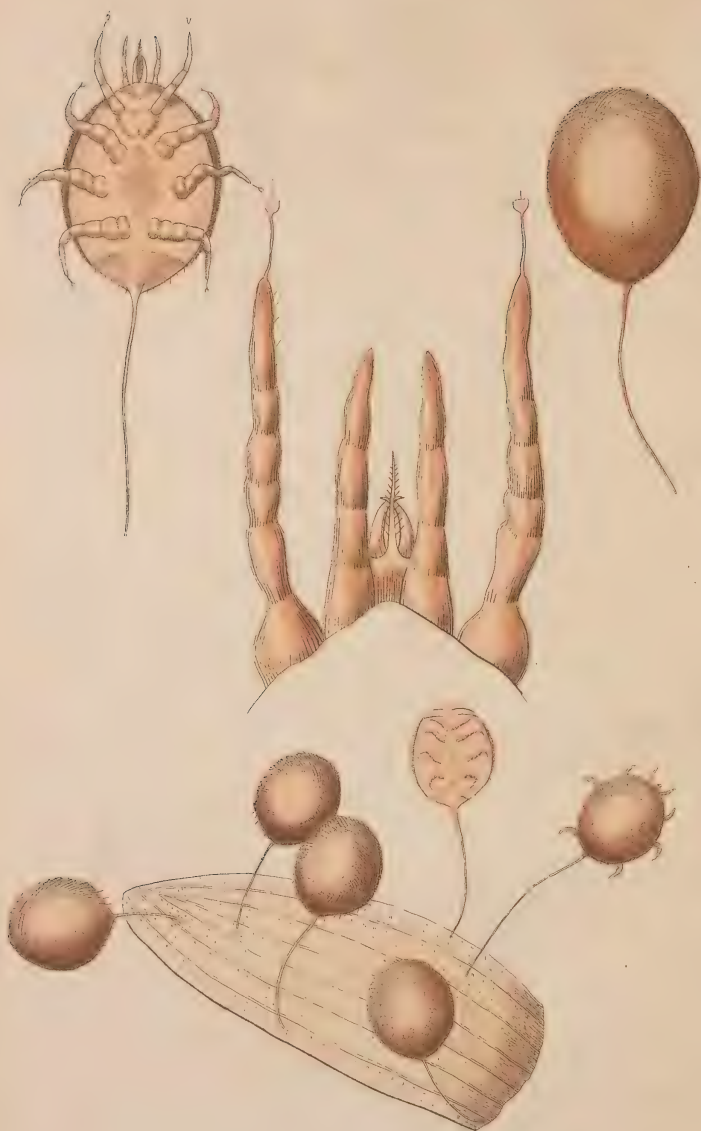
Mirandus omnino est modus quo adhærent hi acari corporibus aut elytris aliorum animalculorum, pedicello nempe, seu stipite flexili; quo fit, nisi succus nutritius ab hoc pedicello absorbeatur, (quod ut fiat tubulatum putemus,) necesse esse stipitem aliquando semicirculatim posse eos curvare, ut insectum cui affiguntur fugendo se alant. Interdum illis adeo coope-riuntur Coleoptera, ut elytra seu alarum tegumenta non possint conjungi, ipsique artus impediti ægre moveantur.

Acari Vegetantis superficies superior est glabra et convexa; inferior fere complanata. Clarius tamen patebit similitudo insectum ipsum depictum inspicienti, quam ex descriptione colligi possit. Figuræ duæ superiores acarum anticum et posticum repræsentant. Figura autem magna ostendit plures, sex nempe, elytro adhærentes illius scarabæi quem varietatem esse *finetarii* ante diximus. Alia maxillas, cæterasque capitis partes mire conformatas, multo tamen auctius, monstrat.

Magnum horum me memini numerum Onisco a LINNÆO *Armadillo* nominato, seu *millepedæ officinarum*, ut dicitur, annexum semel conspexisse. Ut verbo dicam, acarum vegetantem nihil aliud esse suspicor præter larvam acari coleopratorum LINNÆI, qui super scarabæos fere omni tempore possit inveniri, physicisque optime innotescit. Notandum præterea acarum vegetantem non in genere acari apud LINNÆUM reperiri, sed in appendice animalium ad finem voluminis tertii Systematis Naturæ.

Celeberrimus

Celeberrimus DE GEER in Actis Stockholmiensibus
anni millesimi septingentesimi sexagesimi octavi par-
vulum hoc animalculum descripsit et delineavit, vix
tamen fatis eleganter aut accurate. In Historia Insec-
torum iterum illud descripsit idem auctor et depinxit.



London Published April 1st 1791 by T. P. Nodder & Co. N^o. 15 Brewer Street.

THE VEGETATING MITE.



GENERIC CHARACTER.

Eight *Legs*.

Two *Eyes*, situated on the sides of the head.

Two *Tentacula*, jointed, and shaped like feet.

SPECIFIC CHARACTER.

CRUSTACEOUS REDDISH or YELLOW-
ISH-BROWN ACARUS, convex above,
flat beneath.

That curious little insect, the acarus vegetans of LINNÆUS, or the vegetating mite, being, on account of its minuteness, less attended to than many others of its genus, it cannot be unacceptable to the admirers of Natural History to see it accurately figured and described. It is generally to be found on the bodies of other insects; and particularly on those belonging to the beetle tribe, or such as in the LINNÆAN language, belong to the class Coleoptera.

The insect on which I have most commonly observed it, is the Hister Unicolor LIN: which is a smallish coleopterous insect, frequently seen in gardens in the early part of the spring, and which at that season seldom fails to have some of the vegetating mites either

on

on its body or wing cases. I have also observed it in great plenty on the *scarabæus stercorarius* LIN: or common black beetle, as well as on a small brown variety of the *scarabæus fimetarius* LIN: which is almost always to be found in cow-dung in the months of April and May.

The manner in which these minute insects adhere is very curious; for each is affixed by a flexible stalk or pedicle to the wing-shells and other parts of the insect they infest; so that unless their nutriment is absorbed by the stalk which supports them, (and which, in this case, must be tubular,) they must have the power of bending the stalk in a semicircular direction at particular times, so as to enable them to adhere occasionally to the insect for the purpose of feeding. They are sometimes so numerous as to prevent the beetles on which they grow, from closing their wing-sheaths; and adhere to their limbs in such a manner as greatly to impede their motions.

The upper surface is smooth and convex; the lower surface flat; but the figures annexed will convey a clearer idea of the several particulars of their appearance than any description. The two upper figures represent the fore and back view of the insect. The large groupe represents six of them adhering to the elytron or wing-sheath of the brown variety above-mentioned of the *scarabæus fimetarius*. The other figure shews the singular appearance of the jaws and other parts at the head of the insect, magnified in a much greater degree.

I once observed these insects in great plenty on the oniscus armadillo, or common officinal Millepede. Upon the whole, I am strongly inclined to believe the vegetating mite to be nothing more than the larva or young of the acarus coleoptratorum, or common beetle-acarus, which infests those insects at most seasons of the year, and which is well known to every observer of insects. I should observe that the acarus vegetans does not occur under the genus acarus in the *Systema Naturæ* of LINNÆUS, but is mentioned in the appendix animalium at the end of the third volume of that work.

DE GEER in the *Acta Stockholmiensia* for the year 1768 has described and figured this insect; but his figures cannot be commended either for their elegance or accuracy. He has also figured and described it in his *History of Insects*.

LACERTA PLATURA.



CHARACTER GENERICUS.

Corpus tetrapodum, caudatum, nudum.

Lin. Syst. Nat. p. 359.

CHARACTER SPECIFICUS.

LACERTA cauda depresso-plana lanceolata,
margine subaculeato, corpore griseo-fusco
scabro,

*Ungues quasi duplicati: lingua brevis, lata, integra,
seu non forficata; apice autem leniter emargi-
nato.*

Lacertam Platuram, quam nuperrime detectam generavit Nova Hollandia, insigniter distinguit cauda depressa et complanata, margine tenuissimo, sensim in acutum apicem decrescens. Rarissima est in genere hæc caudæ planities, nec accidit nisi duabus vel tribus speciebus. Uncias quatuor cum semisse paulum superat longitudine Platura. Caput magnum pro corpore. Tota superior superficies tuberculis parvis exasperatur, quæ in aliquibus partibus, versus occiput præcipue et caudam, in mucrones acuminatos extenduntur. Inferior superficies pallida est, seu albescens.

THE BROAD-TAILED LIZARD.



GENERIC CHARACTER.

Body four-footed, tailed, naked.

SPECIFIC CHARACTER.

LIZARD with a depressed lanceolate tail, almost spiny on the margin; the body of a dusky grey color, and rough.

The claws appear as if double; the tongue is short and broad, not forked, but slightly emarginated at the tip.

The *Lacerta Platura* or broad-tailed Lizard, a species very lately discovered, and which is a native of New Holland, is strikingly distinguished by the uncommon form of its tail, which is of a depressed or flattened shape, with very thin edges, and gradually tapers to a sharp extremity. This depressed form of the tail is extremely rare in lizards, there being scarcely more than two or three other species in which a similar structure takes place. This lizard is somewhat more than four inches and a half in length; the head is large in proportion; and the whole upper surface of the animal is beset with small tubercles, which in some parts, especially towards the back of the head, and about the tail, are lengthened into sharpened points. The lower surface is of a pale color, or nearly white.



TROCHILUS COLUBRIS.



CHARACTER GENERICUS.

Rostrum subulato-filiforme, apice tubulato, capite longius : Mandibula superior vaginans inferiorem.

Lingua filiformis, filis duobus coalitis tubulosa.

Pedes ambulatorii.

Lin. Syst. Nat. p. 189.

HARACTER SPECIFICUS, &c.

TROCHILUS rectirostris viridi-aureus, rectricibus nigris, lateralibus tribus ferrugineis apice albis, gula flammea.

Lin. Syst. Nat. p. 191.

MELLIVORA gula rubra.

Edw. Av. t. 36.

MELLIVORA Avis Carolinenfis.

Catesb. Carol. 1. p. 65.

Coloribus nitidis adeo gemmeisque exornatur minimum Trochili genus, ut si cum his comparantur, non modo fordeant prorsus et obscurentur avium plurium regiones calidiores incolentium venustissimi colores, sed et aurum ipsum pyropusque longe superentur. Nequeunt igitur ulla arte splendidissimi hi colores ad

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vivum

vivum exprimi, quæ tum sane magnum præstitit, si insigne harum avium decus imitando adumbraverit. *Regulus cristatus Europæus* avicula omnium minima diu habebatur, et stupebant prorsus nostrates physici, cum aves Americanas vel ipsis infectis Europeis minores conspicerent; inter quas est *Trochilus* vix scarabæo vulgari major. Cum tamen minuta hæc species cæteris cedat colorum splendoribus, satius duxi aliam eamque elegantiores exprimere.

Formosissima hæc avicula plurimas Americæ partes, Carolinam præcipue tam Septentrionalem quam Australem inhabitat. Rostrum illi nigrum est. Corporis superiora splendent aureo-viridi, et mutabili colore. Gulam decorant plumæ coccineæ nitidissimæ, quæ pro lucis ratione in aureum fulgentissimum transeunt. Pectus et abdomen albicant. Alarum remigeo fusco-purpurei. Feminae superficies inferior albicat, carens omnino rubore illo eximio quo mas insignitur. Miranda est huic aviculæ pennarum velocitas. Inter volandum cibum capit phalænæ more, linguam nempe tubulatam in fundum florum immergens et mel inde exugens. Pugnacissimo est ingenio, nec raro de eodém flore acerrime dimicatur. In domus frequenter involat *Trochilus*, cumque, more insectorum Europæorum, tres quatuorve gyros egerit, dicto citius e fenestris effugit. Ubi densissima est arborum coma nidificat, plerumque inter furcas ramulorum. Diametros interna nido est uncia, profunditasque uncia dimidiata: tomento, seu lanugine plantarum intus struitur, extrinsecus musco et lichene stipatur. Ova tantum duo deponit hæc avis, alba, magnitudine pisorum. Dum incubat

incubat foetusque promovet, audacia est incredibili, et in defendendis pullis sæpius ipsas aves majores ad arborem accedentes invadit, et in fugam vertit. Nullam aliam vocem præter stridorem parvum emittit; fufurrus enim iste, quem sono apum aut muscarum fimilem inter volandam edit, ab alis vibratis provenit.

THE RED-THROATED HUMMING- BIRD.

GENERIC CHARACTER.

Bill slender, tubular, the upper mandible sheathing the lower.

Tongue very long, missile ; formed of two conjoined cylindric tubes.

Toes three forward, one backward.

SPECIFIC CHARACTER, &c.

STRAIT-BILLED gold-green HUMMING-
-BIRD, whitish beneath, with gold-red
throat.

LE RUBIS.

Buff. Ois. 6. p. 13.

L'OISEAU - MOUCHE a gorge rouge de la
Caroline.

Briss. Orn. 3. p. 716. No. 13.

The lively colors with which Nature has so liberally adorned the birds of the warmer regions, sink into obscurity when compared with the polished radiance and gemmeous lustre which distinguish most of the species of this diminutive genus. The ruby is not more
vivid



vivid than the red which some species exhibit, nor gold so brilliant as the glance of their varying plumage : it is therefore entirely beyond the power of art to represent their colours with fidelity : all that can be done is to give a general idea of the inimitable beauties which Nature exhibits to us in these birds.

Before the discovery of the Western Hemisphere, the golden-crested wren was believed to be the smallest of birds ; but the Naturalists of Europe were astonished on finding that the new world afforded birds inferior in size to many of the European insects ; and that one species in particular was scarce larger than a common beetle. As that very minute species however is not so remarkable for the beauty of its color as most others of the genus, I have rather chosen to exhibit one which displays a more elegant assemblage of colors, and at the same time may be numbered amongst the smallest of the genus.

This beautiful bird is a native of many parts of America, and is very frequently seen in the provinces of North and South Carolina. The bill in this species is black ; the upper parts of the bird are of a rich variable golden-green ; the chin and throat of the most glowing scarlet, changing according to the light into polished gold ; the breast and belly are white, and the long feathers of the wings are of a purplish brown. The female differs in having the whole under surface white, without any of the ruby-red, which so richly adorns the male. This diminutive bird flies with a rapidity altogether astonishing. It feeds in the manner of a moth on the wing, by inserting its long tubular tongue

tongue into the bottoms of flowers, from which it sucks the honey-juice. They are said to be of a very pugnacious nature, and have frequently the most violent contests when they happen to dispute the possession of the same flower. They often fly into houses, and after taking a few circuits round the room in the manner of European insects, again dart into the open air. They build amongst the thick foliage of trees, on some forked twig. The nest is about an inch in diameter in the inside, and half an inch deep: it is lined with the down of plants, and coated on the outside with moss and lichens. They lay only two eggs, which are perfectly white, and about the size of peas. During the time of incubation, and when the eggs are hatched, they shew an astonishing degree of courage, and in defence of their young have frequently been known to attack and put to flight even the larger birds which have happened to approach near the same tree. They have no other note than a kind of sharp squeak, which they emit now and then; the noise which they make during flight is caused by their wings, and is not unlike that of a fly, or bee.

CHÆTODON ENCELADUS.



CHARACTER GENERICUS.

Dentes setacei, flexiles, confertissimi, numerosissimi.

Membrana branchiostega radiis sex.

Corpus plerumque fasciatum. *Pinna* dorſi anique carnoſa ſquamoſa.

CHARACTER SPECIFICUS, &c.

CHÆTODON albescens, pinna dorſuali ſpinis novem, maculaque ocellari, roſtro elongato ſubcylindrico.

CHÆTODON ROSTRATUS.

Lin. Syſt. Nat. p. 462.

JACULATOR. *Aſt. Angl.* 1764.

Indiam incolit piſcis cujus magnitudinem naturalem exprimit tabula, fluvioſque præcipue amat mari proximis qui idcirco paululum habent ſalſuginis. Mirandus omnino eſt prædandi modus, quo muſcis aliſque infectis ſuper aquas volitantibus inſidiatur, in quæ ſimul ac tranſeuntia viderit, e roſtro tubulato aquæ guttulam tanta cum vi directe jaculatur, ut plerumque mortua decidunt. Eodem modo petit animalcula quæ ſuper plantas ex aquis eminentes ſolent conſidere, diſtantia quatuor vel etiam ſex pedum prius dimenſa.

In

In piscina conservati hi pisces miræ hujusmodi artis specimen dant lepidissimum. Insectum enim margini vasis affixum illico sentiunt, et quasi certatim et pro præmio jaculantes, rarissime a scopo aberrant.

Color Encelado est pallidus, fasciis plerumque aliquot nigricantibus transverse per corpus ductis. Oculi permagni. In parte inferiore pinnæ dorsalis macula est magna, rotunda, ocellata, nigra, iride seu circulo pallido cincta. Rostrum longius quam multis ejusdem generis, et a natura ad aquæ ejaculationem exquisitè comparatum: nomen autem triviale *rostratus* a LINNÆO datum haud satis speciem indicat, et forte æquali jure cum aliis hujus generis conveniat: hanc igitur speciem nomine *Enceladus* distinxi.

Notandum præterea, verisimile esse facultatem istam aqua ejaculata prædam petendi, non omnino propriam et peculiarem esse huic speciei, sed et aliis forsan paucis inesse.



THE
JACULATOR,
OR
SHOOTING FISH.



GENERIC CHARACTER.

Teeth (generally) setaceous, small, and very numerous.

Body commonly fasciated transversely. *Dorsal* and anal *Fins* fleshy and scaly toward the base.

SPECIFIC CHARACTER.

WHITISH CHÆTODON, with nine spines and an ocellated spot on the dorsal fin, and a lengthened subcylindric snout.

The fish here represented in its natural size, is a native of India, where it inhabits rivers, especially where the water, from its nearness to the sea, is a little brackish. It is remarkable for the very extraordinary manner in which it takes its prey. It principally feeds on flies and other insects which hover over the waters. When it observes one of these in its passage, it shoots against it from its tubular snout a drop of water, with so much force, and with so sure an aim as generally to lay it dead on the surface. In the same manner it shoots

shoots at such insects as happen to be sitting on the tops of plants and other projecting objects near the banks. In shooting at a sitting insect it commonly approaches to the distance of from six to four feet before it explodes the water.

When kept in a state of confinement in a large basin of water, these fish afford a high entertainment, by their dexterity in this exercise. If a fly or other insect be fastened on the edge of the vessel, the fish instantly perceive it, and, as if contending for the prize, continue to shoot at it, with such admirable skill as scarce ever to miss their mark.

The color of this fish is whitish, or very pale brown, with (commonly) four or five blackish fasciæ running across the body. The eyes are very large. On the lower part of the dorsal fin is a very remarkable large black ocellated spot, surrounded by a circle of a lighter color. The snout is finely calculated for the power of exploding water from it. The trivial name of *Rostratus*, which LINNÆUS applied to this fish, being not sufficiently distinctive of the species, but applying with perhaps equal propriety to some others of the genus, I have presumed to substitute that of *Enceladus*.

I think it necessary to observe that it is not improbable that the faculty of darting or shooting water from the snout may not be absolutely peculiar to the fish above-described, but may perhaps take place in two or three other species.

PAPILIO ACHILLES.



CHARACTER GENERICUS.

Antennæ apicem versus crassiores, sæpius clavato-capitatae.

Alæ (sedentis) erectæ sursumque conniventes (volatu diurno).

Lin. Syst. Nat. p. 744.

CHARACTER SPECIFICUS.

PAPILIO alis dentatis : supra nigris fascia cærulea ; subtus fuscis : ocellis tribus quinifve.

Lin Syst. Nat. p. 752.

Eq : Achiv.

Clerk. ic. t. 24. fig. 2.

Mer. Sur. t. 7. ?

Americam Australem incolit grande hoc insectum, venusta quadam dignitate conspicuum. Colores interdum variant. Habent nempe nonnulla specimina fasciam istam quæ splendidissime cærulea est latiore multo quam alia. Differunt etiam tum numero tum colore pallidæ illæ maculæ ad apices alarum superiorum sitæ, interdumque fere albæ sunt, et paululum ocellatæ, interdum subfusco obumbratæ. Superficiæ inferioris

inferioris color est fuscus, striis pallidioribus undulatus,
maculisque magnis ocellatis, quarum alba sunt centra,
distinctus.



ACHILLES,
OR THE
GREAT BLUE-BANDED
BUTTERFLY.



GENERIC CHARACTER.

The *Antennæ* or *Horns* thickening towards the upper part, and generally terminating in a knob, or club-shaped tip.

The *Wings* (when fitting) erect, and meeting upwards. (*Flight* diurnal).

SPECIFIC CHARACTER.

BLACK BUTTERFLY with indented wings, crossed by a broad band of blue : the lower surface brown, with ocellated spots.

This insect, so remarkable for its size and the grandeur of its appearance, is a native of South America. It is subject to some variety ; the band of brilliant blue being wider in some specimens than in others : there is also a difference in the number as well as the color of the pale spots with which the upper wings are marked towards their tips, which in some specimens are nearly white, and of a somewhat ocellated appearance ; in others

others tinged with pale brown. The lower surface of this insect is brown, undulated with paler streaks, and ornamented by some large ocellated spots with white centres or pupils.

ANAS MERIANÆ.



CHARACTER GENERICUS.

Rostrum lamelloso-dentatum, convexum, obtusum.

Lingua ciliata, obtusa.

Lin. Syst. Nat. p. 194.

Ord. Anseres.

CHARACTER SPECIFICUS.

ANAS cupreo-ferrugineo cyaneo viridique varia, subtus alba, capite collo postico remigumque secundariorum apicibus carunculatis.

Ab exemplari, quod cum aliis multis Surinamenfis a lectissima MERIAN eximie depictis, in Museo Britannico asservatur, pulcherrimam hanc avem imitati sumus.

Omnes quibus illam intueri datum est semper torfit species incognita. Ad LINNÆI Anatis moschatae similitudinem, seu, ut vulgo dicitur Moscoviticae videtur accedere; caput tamen pluribus tuberculis aspergitur, per collum etiam posticum longe decurrentibus; quodque magis mirandum, in apicibus remigum secundariorum magna horum exuberat luxuria, fasciam duplicem caruncularum per mediam alam transverse

H h

ducentium.

ducentium. Effecit res nova et inaudita ut ipsius picturæ veritas in dubium vocetur, cum in reliquo hoc genere frustra quærat^{ur} simile quidpiam, nec sane in alio aliquo tanta fit tuberculorum ubertas.

Fatendum est Garruli Boiohemici, qui Ampelis Garrulus LINNÆI, remiges secundarios appendicibus complanatis corneis ruberrimisque terminari; quod et in Gallo gallinaceo, si juxta naturam ipsam vixerit, minus tamen perspicue, cernitur; in extremitatibus nempe pennarum quæ in collo sunt. Annon igitur in hac anatis specie remigibus secundariis revera appendantur tubercula; seu habeat avis certis temporibus carunculas laterales, quæ per ipsas alarum pennas interdum protrudantur; an denique ipsa MERIAN, ut physicorum ingenium exerceret, avemque formosiores redderet, a veritate semel sciens volensque deflexerit; hæc omnia futuris indagatoribus relinquamus necesse est. Certum interim est hodiernis physicis plane ignotam esse hanc avem, illamque ex antiquioribus neminem aut descripsisse aut depinxisse. Magnitudine Anatis communis seu Boschadis a MERIANA depingitur.



T H E
M E R I A N D U C K .



GENERIC CHARACTER.

Bill broad and flattened ; the edges marked with sharp lamellæ.

Tongue broad and ciliated at the edges.

SPECIFIC CHARACTER.

DUCK varied with copper-ferruginous, deep blue, and green : white beneath ; with the head, back of neck, and tips of secondary wing-feathers carunculated.

The very extraordinary and beautiful bird here figured is accurately copied from a most elegant drawing by the celebrated Madam MERIAN, and is one of the birds of Surinam which occur in the representations by that lady now preserved in the British Museum.

This bird has uniformly puzzled every ornithologist who has viewed it, to determine its real species. It is evident at first sight that it bears a strong affinity to the *Anas moschata* of LINNÆUS, which is commonly called the Moscovy Duck ; but is much more tuberculated about the head, and even a very considerable distance down the back of the neck ; and what is to the last degree singular, the same sort of tubercles appear

pear in full luxuriance at the tips of the secondary remiges or wing feathers, forming a double carunculated band across the middle of the wing. This is a circumstance so extremely peculiar, that it has given rise to strong suspicions of the fidelity of the drawing ; there being no other instance of a similar appearance in the birds of this genus, or indeed, in so striking a degree, in any other.

It is true that in the bird called the *Ampelis Garrulus*, or Bohemian Chatterer, the tips of the secondary wing-feathers are terminated by flat callous or horny appendages of a bright red color ; and an appearance in some degree analogous to this takes place also in the tips of the neck-feathers of the common cock in a state of Nature. Whether therefore in this species of duck the tips of the secondaries be really furnished with tuberculated appendages ; or whether the bird, at particular seasons may not be furnished with lateral caruncles, which may occasionally protrude between the feathers of the wings as represented by Madam MERIAN ; or lastly, whether that ingenious lady may not in this instance have departed a little from her general accuracy, and have given what she might have considered as an additional ornament, must be left to future enquiries to determine : certain it is that the bird is unknown to modern ornithologists, and is neither figured or described by any other natural historian. The size of Madam MERIAN's figure is nearly that of a common duck.

HEDYSARUM GYRANS.



CHARACTER GENERICUS.

Corollæ carina transverse obtusa.

Legumen articulis monospermis.

Lin. Syst. Nat. p. 493.

Diadelph : Decandr :

CHARACTER SPECIFICUS.

HEDYSARUM foliis ternatis.

Lin. Suppl. Plantar. 1781. p. 332.

Cum paucis abhinc annis ab interiori Bengala ad nos pervenerit hæc planta, perculit omnino Europæos physicos mira illius atque antehac incognita qualitas ; motus nempe perpetuus et spontaneus, causis externis nec impeditus nec acceleratus, Mimosæ aliarumque nonnullarum more negans irritari. Efficitur hic motus alternatim convenientibus et recedentibus duobus parvulis foliis utrinque ad pediculos fitis, quæ per totum fere diem leni hoc exercitio agitantur.

Apud nos tamen non semper expectationi respondet Hedyfarum Gyran, frigus sentiens torpidum, aeremque pigrum et a nativo longe diversum, manensque meridie, languido et imbecillo conatu vim insitam ægre evocat : clarissimum argumentum mitiores zephyrorum auras, mollemque cœli Indici temperiem hypocaustorum vaporibus male permutari. In Gangetica terra
facili-

facillimus et liberrimus est hujus plantæ motus, quam facram habent incolæ, cæterisque longe digniorem.

Spontaneo huic motui nihil adhuc in vegetabilibus simile repertum est: inter plurima est quæ oculis, non intellectu cernuntur, quæque non possumus non admirari, ignorantiam fatentes.

In Europa ad altitudinem duorum vel trium pedum plerumque crescit, foliaque gerit læte viridia, quorum media pars magis est glauca; floresque rubentes subcæruleo tinctos, et interdum flavescentes.



London, Published June 14, 1879, by F. & A. Nodder & Co. 15, Brecon Street.

ANIMATED HEDYSARUM, OR THE MOVING PLANT.



GENERIC CHARACTER.

Keel of the *Corolla* transversely obtuse.

Legume with single-seeded joints.

SPECIFIC CHARACTER.

HEDYSARUM with ternate leaves.

The plant of which a figure is here given was some years backwards transmitted to us from the interior parts of Bengal, and struck the European Naturalists with astonishment at a phænomenon till then unknown amongst vegetables ; viz. a constant and voluntary motion ; unconnected with any peculiar irritability, as in the sensitive plants and some others, and neither accelerated or retarded by external causes. The motion consists in the alternate meeting and receding of the two small appendages or leaflets situated on each side the footstalks, and which are engaged in this gentle exercise during the greatest part of the day.

In our own country, however, it is not always that the specimens of this curious plant, in an air so different from that of their native regions, exhibit themselves to advantage : they frequently feel the benumbing effects

fects of an unfavorable climate, and only make a faint and feeble attempt towards the middle of the day, at exerting their extraordinary faculty ; a convincing proof how much the artificial heat of a northern stove is inferior to the genial warmth and balmy softness of its native Indian atmosphere ! It is there that it exerts its wonderful motions with unrestrained freedom, and is regarded as a sacred plant, possessed of powers superior to the common race of vegetables.

This voluntary motion is not analogous to any other yet observed in plants : it is one of those numerous phænomena which we are obliged to view without understanding, and to admire without being able to explain.

The specimens raised in Europe generally rise to about the height of two or three feet : the leaves are of a bright green with the middle part of a more glaucous appearance than the rest : the flowers are of a pale red, slightly tinged with blueish, and sometimes yellowish.

SERTULARIA SETACEA.



CHARACTER GENERICUS.

Flores Hydræ.

Stirps radicata, fibrosa, nuda, articulata : articulis unifloris.

Lin. Syst. Nat. p. 1306.

CHARACTER SPECIFICUS, &c.

SERTULARIA simplex pinnata, pinnis alternis subincurvatis, denticulis obsoletis remotissimis secundis, ovariis oblongo-tubulatis axillaribus.

Ellis. Zooph. p. 47.

SERTULARIA PINNATA. *β.*

Lin. Syst. Nat. p. 1312.

Genus Sertulariæ, exemplum admirabile exstat animalis sub specie vegetabilis. Tam apprimè enim plantas repræsentant pleræque Sertulariæ species, ut pene ab omnibus pro muscis marinis habitæ, itaque ab historiæ naturalis studiosis descriptæ sint. Solertissimus autem nuper defunctus ELLISIUS plane probavit hæc simulata vegetabilia veras esse hydras, seu polypos marinos ; ab hydris aquarum dulcium in hoc differentes, quod habeant corneam velut thecam corporum ramu-

los cingentem, defendentemque ab omnibus injuriis quas in elemento tam turbido et feroci nudæ experirentur.

Sertulariæ rupibus, conchis aliisque, stolonibus, seu radicibus velut repentibus affiguntur; et hoc modo plantis videntur simillimæ. Corpuscula illa ovata, quæ in axillis ramulorum conspiciuntur, pro ovariis ab ELLISIO habentur, credunturque continere ova, et interdum etiam fœtus plane formatos. Species Sertulariæ numerosissimæ existant, quarum plures sunt vulgatissimæ.

Species quam hic depingi curavimus ab ELLISIO mutuati sumus, utpote structuræ qualitates peculiares probe exprimentem. Pars animalis, velut medulla, undique per corneam thecam diffusa est; et ex singulo ramulorum denticulo sub forma capitis hydræ protruditur cum suis tentaculis. Ovaria, ut vocat ELLISIUS, in axillis ramorum sita sunt. Sertulariæ, sicut hydræ aquarum dulcium, omnia animalcula prædantur quæ tentaculis suis fors obtulerit.

Fig. 1. Animal magnitudine naturali,

Fig. 2. Idem microscopio auctum.



London, Published June 1st 1841, by T. P. A. S. & Co. No. 15, Broad Street.

THE SMALL SEA-BRISTLE CORALLINE.



GENERIC CHARACTER.

A compound Hydra or Polype ramified in the manner of a plant, included in a horny case, and affixed by its base.

SPECIFIC CHARACTER, &c.

SIMPLY PINNATED SERTULARIA, with bent alternate pinnæ furnished with very remote processes growing on one side only, and oblong axillary ovaries.

LITTLE SEA-BRISTLE CORALLINE.

Ellis Zooph. p. 47.

Ellis's Corallines, pl. 38. fig. 4.

The genus Sertularia affords a most curious proof of an animal body under the appearance of a vegetable. So very great is the similitude which most of the species bear to plants, that they have almost universally been regarded as a sort of sea-mosses, and as such have been described by most naturalists; but the late ingenious Mr. ELLIS seems to have clearly proved that these apparent vegetables are no other than real marine polypes or hydras; which differ from the fresh-water polypes in being provided by Nature with a horny case

case or tube, accompanying the ramifications of their bodies, and serving to defend them from the numerous disasters to which they would otherwise be liable, if left naked in the tumultuous element in which they are destined to reside.

They adhere to rocks, shells, &c. by creeping processes, which bear the appearance of spreading roots, and thus contribute still farther to their plant-like aspect. The oval bodies which are so frequently seen seated at the bases of the lateral branches, are supposed by Mr. Ellis to be the ovaries of the animal, containing the eggs, and sometimes the completely-formed young. The species of *Sertularia* are extremely numerous, and are very common.

The species here figured we have copied from the works of Mr. ELLIS, as it serves to shew in the clearest and most distinct manner possible, the several particulars of the supposed structure. The animal part like a medulla or pith, is every where seen through the transparent horny coat ; and at every denticulation of the branches it is protruded in the form of a polype-head with its tentacula. The supposed ovaries are situated in the axillæ of the branches. The *Sertulariæ*, like the fresh-water polypes, prey on such small animalcules as happen to fall in the way of their tentacula.

Fig. 1. represents the animal in its natural size.

Fig. 2. shews it magnified by a microscope.

STRUTHIO RHEA.



CHARACTER GENERICUS.

Rostrum subconicum, depressum.

Nares ovatæ.

Alæ ad volandum ineptæ.

Pedes cursorii.

CHARACTER SPECIFICUS,

STRUTHIO pedibus tridactylis.

Ab exemplari pulcherrimo Americano, in Museum Leverianum nuperrime illato nunc primum depingitur avis exoticarum fere omnium rarissima, quamque probabile est non modo non vidisse Europæos physicos, sed pene ignorasse. Struthioni licet communi seu Africano primo intuitu simillima sit Rhea, alarum tamen pennæ, utcunque ad volandum inutiles, non modo longe majores sunt, sed et laxæ et quasi divaricatæ; et utrinque super axillas exstat fasciculus plumosus elongatus, torquem efficiens, quali propemodum distinguitur cervix Tetraonis Umbelli. Facillime vero speciem denotat, Linnæoque pro charactere specifico inserviit pedum forma, qui tridactyli sunt, digitis

K k

omnibus

omnibus antrorsum spectantibus, unguatis, et æquali fere magnitudine; cum habeat pes Struthionis communis duos digitos, quorum major tantum unguibus instruitur. Color Rheæ, in hoc saltem specimine, est terreo-fuscus, subtus pallidior, pennis alarum intermediis seu interioribus albis. Cauda vix discerni potest; in uropigio tamen paulo productiores sunt pennæ quam in reliquo corpore. Crura pedesque nigricant.

Notandum est in America tantum Australi reperiri hanc speciem, et pullum forsitan fuisse avem quæ in Museo Leveriano asservatur; est enim Struthione Africano dimidio minor.



THE AMERICAN OSTRICH,



GENERIC CHARACTER.

Bill depressed, rounded at the end.

Wings useless for flight.

Legs naked above the knee.

SPECIFIC CHARACTER.

OSTRICH with three-toed feet.

The *Struthio Rhea*, or American Ostrich, one of the rarest of exotic birds, and which appears to have been hitherto almost unknown in Europe, and scarce ever seen by any European naturalist, and which most certainly has never before been figured, is here faithfully represented from a very fine specimen lately sent from America to the Leverian Museum. In its habit, or general appearance, this bird at first sight bears a near resemblance to the common or African Ostrich; but the wings, though useless for flight, are composed of feathers which greatly exceed those of the common ostrich: they are also looser, and more divaricated or

spread than in that species; and on each side the neck, just above the axillæ, is a fasciculus of long feathers, forming a sort of ruff, almost in the same manner as in the Tetrao Umbellus, or ruffed heathcock; but what easily distinguishes this species, and which LINNÆUS has made use of for his specific character of the bird, is, that the feet are not didactylous, or composed of two toes, as in the common or African species, but are tridactylous, or composed of three distinct toes; all which point forwards, and are nearly alike as to proportion: they are likewise all three furnished with claws; whereas in the common ostrich there are only two toes, of which the primary or large one alone is clawed. The colour of this bird (at least in the present specimen) is earthy-brown, paler beneath, and the intermediate or interior wing-feathers are white. There is scarce any appearance of a tail, but the feathers on the rump are a very little longer than in other parts. The legs and feet are blackish. I should observe, that this specimen is probably not a full-grown one, and is scarcely half the size of the common or African ostrich.

MUS STRIATUS.



CHARACTER GENERICUS.

Dentes Primores inferiores subulati.

Lin. Syst. Nat. p. 79.

CHARACTER SPECIFICUS, &c.

MUS rufus, corporis striis pluribus albo-guttatis.

MUS Orientalis.

Seba. 2. t. 21. f. 2.

Pall. Glir. p. 90. No. 97.

In calidioribus ut plurimum mundi partibus, in India præcipue Orientali reperitur mus hicce parvulus et pulcherrimus. Color est rufus seu ferrugineofuscus, subtus pallidior magisque albicans. Ornantur dorsum et latera crebris ordinibus punctorum alborum quæ formam ovatam obtinent. Crura quoque et cauda subalbida sunt. Cum ingenio fit Mus striatus miti admodum et innocuo facillime mansuescit. Magnitudine muri vulgari paululum cedit.

THE
STRIPED MOUSE.



GENERIC CHARACTER.

Two cutting teeth in each jaw.
Four toes before; five behind.
Slender taper tail.

SPECIFIC CHARACTER, &c.

RUFOUS MOUSE, with the body marked by
several rows of oval white spots.

ORIENTAL RAT.

Penn. Quadr. p. 445.

This little animal, so eminently distinguished by the beauty of its appearance, is chiefly found in the warmer regions of the globe, and particularly in the East-Indies. Its colour is a ferruginous or reddish brown, paler, or more inclining to white beneath, and decorated on the back and sides by several rows of small oval spots of white. The tail and legs also incline to whitish. It is easily tamed, and its disposition is perfectly mild and gentle. It is somewhat less than the common mouse.



S. 1.

London, Published July 1879, by F. B. Nodder & Co. 112, Broad Street.

COLUBER NAJA.



CHARACTER GENERICUS.

Scuta abdominalia.

Squamæ subcaudales.

Lin. Syst. Nat. p. 275.

CHARACTER SPECIFICUS.

COLUBER FERRUGINEO-FLAVESCENS,
collo (plerumque) multum dilatato macula-
que supra conspicillata albo nigroque varia
notato.

Scuta abdominalia circiter 193.

Squamæ subcaudales 60.

Inter Europæorum commoda jure potest reputari
serpentum venenosorum paucitas, qui in Indiæ et
Africæ vastis regionibus, nec non in Americæ late
patentibus desertis denso et horrendo dominantur ag-
mine; nonnulli in exitium humani generis nimis, heu!
lethaliter armati.

Omnes virulenti serpentes dentibus tubulatis ve-
nenum per foramen e facculo maxillari in vulnus in-
flantibus, instructi sunt. Sunt tamen alii illis charac-
teres quibus aliquatenus ab innoxiiis serpentibus dis-
tingui

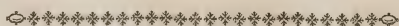
tingui possunt. Notavit Dominus GRAY, in Aëis Anglicis plerosque venenosos serpentes caput latum, depressum, squamis minutis tectum habere; corporaque squamis carinatis, seu lineâ elevata notatis obducta: at e contrario, innoxii serpentes, qui morfu tantum simplici lædunt, caput plerumque esse parvum, squamis magnis et latis adopertum, corpusque squamis lævibus, seu non carinatis. Hi autem characteres generales habendi sunt, nec sunt improvide et indubitanter recipiendi. Ita se rem habere species depicta exemplum est clarissimum. Est enim hic serpens inter pestiferos fere dirissimus; et tamen externis illis specierum perniciosarum characteribus non distinguitur; sed ut innocuo serpenti caput est illi plerumque parvum, squamis magnis tectum; corpusque squamis lævibus, seu non carinatis.

Tremendum hocce animal in India Orientali invenitur. Morfus ejus non minus quam Crotali funestus est. Ab Indiæ tamen incolis interdum capitur, et telis, seu dentibus tubulatis extractis (mirum dictu!) mansuescit, et in varios modos, ad domini nutum, velut saltans, se contorquet; et sæpe pro spectaculo exhibetur. Nota, quam in collo habet singularem, diversis speciminibus plus minus vivida est. Color etiam totius corporis in diversis aliquatenus differt. In longitudinem aliquot pedum interdum crescit hic serpens.

Cum monstra hæc, regiones calidiores orbis incolentia, animo occurrunt, gratulari nobismetipsis merito possumus de nostra securitate; et lubentissime antepponamus hyemis septentrionalis incommoda, pigrosque campos

campos et diu infructuosos, perenni climatis æstati,
et floribus perpetuo ridentibus, quibus India utraque
superbit : at ubi, proh dolor ! viator incautus, media
inter gaudia, fato subitaneo corripitur.

THE
SPECTACLE SNAKE,
OR
COBRA DE CAPELLO.



GENERIC CHARACTER.

Transverse *Lamellæ* under the abdomen.
Broad alternate *Scales* under the tail.

SPECIFIC CHARACTER.

FERRUGINOUS-YELLOW SNAKE, with
the neck (generally) much dilated, and
marked above by a spectacle-shaped spot of
black and white.

The abdominal plates are about 193.
The subcaudal scales 60.

In Europe the noxious part of the serpent tribe is happily confined to a very few poisonous species; but the vast regions of India and Africa, and the extensive wilds of America, are infested by a variety of these dreadful reptiles; some of which are but too well provided with the fatal power of destroying mankind by their bite.

Such



Such serpents as are of a venomous nature, are furnished with tubular fangs, or teeth, through which their poison, which is contained in reservoirs at the roots of the fangs, is injected into the wound. Besides the fangs, there are in general some external characters which may in some measure serve to distinguish the poisonous serpents from the innoxious ones: thus it has been observed by the ingenious Dr. GRAY, in the Philosophical Transactions, that the generality of poisonous serpents have a broad, depressed head, covered with small scales; and that their bodies are commonly covered with carinated scales, *i. e.* scales which have a prominent line upon them. On the contrary, the innoxious serpents, or such as can merely inflict a simple wound, have generally a smallish head, covered with large broad scales, and the body covered with smooth scales, or not carinated: but these are characters which admit of exceptions, and are merely to be regarded in a general view. The species here figured is a striking instance of this, and (as Dr. GRAY observes) is in every respect a complete exception to what has been said respecting the distinction between venomous and innoxious serpents; for though this is one of the most terrible of the whole tribe, yet it is not distinguished by those external marks of malignity which commonly characterize the poisonous species: on the contrary, it agrees with the innoxious serpents in having a smallish head, covered with very large scales; while the body is covered with smooth scales. This formidable animal is a native of the East-Indies. Its bite is not less destructive than that of the Rattle-Snake.

Snake. It is said however to be sometimes caught by the Indians, and after having its fangs drawn, to be in some degree tamed, so as to be taught to throw itself into various fantastic attitudes, as if dancing; and in this condition is often exhibited in India as a shew. The very singular mark on the neck is much more apparent in some specimens than in others. The colour also of the whole body is deeper or lighter in different specimens. It grows to the length of some feet.

Reflecting on these horrid natives of the hotter regions of the globe, we may congratulate ourselves on our own happy state of security, and may well be willing to prefer the rigours of a northern winter, with a temporary loss of vegetation, to the continued warmth of climate, and ever-blooming verdure, which distinguish the beautiful regions of both the Indies; where alas! the incautious traveller may meet with sudden fate in the midst of the most enchanting scenes which nature can display.

I N D E X.

- PL. **A**CARUS autumnalis.
 42. Acarus vegetans.
 64. Anas Merianæ.
 69. Boa Constrictor.
 51. 59. Bradypus urinus.
 41. Buceros Rhinoceros.
 57. Chætodon armatus.
 67. Chætodon Enceladus.
 74. Coluber Naja.
 40. Dionæa Muscipula.
 62. Gryllus migratorius.
 70. Hedyfarum gyrans.
 46. Julus maximus.
 45. Lacerta Salamandra.
 65. Lacerta platura.
 56. Loxia jugularis.
 43. Mantis Gigas.
 38. Mus falliens.
 73. Mus striatus.
 63. Muscicapa porphyrobroncha
 49. Papilio Menelaus.
 68. Papilio Achilles.
 39. Pennatula phosphorea.
 60. Petaurus australis.
 44. Picus minimus.
 53. Pſittacus gloriosus.
 50. Pſittacus magnificus.
 48. Simia Sphinx?
 71. Sertularia setacea.
 61. Siren lacertina.
 54. Stapelia hirsuta.
 47. Strix Nyctea, var.
 72. Struthio Rhea.
 55. Sorex bicolor.
 66. Trochilus Colubris.
 52. Voluta arauaciaca.

I N D E X.

- PL. **A**CARUS autumnal.
 42. Baboon variegated.
 48. Boa great.
 51. Butterfly silver-blue.
 49. Butterfly great blue-banded.
 68. Chætodon long-spined.
 57. Cockatoo magnificent.
 50. Coralline sea-bristle.
 71. Duck Merian.
 69. Fly-trap Venus's.
 40. Fly-catcher purple-throated
 63. Grosbeak red-throated.
 56. Horn-bill great.
 41. Humming-bird red-throated
 66. Hedyfarum animated.
 70. Jaculator.
 67. Julus great.
 46. Jerboa Siberian.
 38. Lizard broad-tailed.
 65. Locust wandering.
 62. Mantis giant.
 43. Mite vegetating.
 64. Mouse striped.
 73. Owl snowy, var.
 47. Ostrich American.
 72. Pennatula phosphoric.
 39. Parrot Pennantian.
 53. Petaurus southern.
 60. Siren.
 61. Snake spectacle.
 74. Stapelia fetid.
 54. 58. Sloth urfine.
 55. Shrew water.
 45. Salamander.
 52. Volute orange-striped.
 44. Woodpecker minute.

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